



GUIDELINES FOR THE PLANNING, DESIGN AND CONSTRUCTION OF CITY STREETScape PROJECTS

Updated June 2007

Photo on previous page:

MONTEREY ROAD (STATE ROUTE 82) MEDIAN ISLAND
LANDSCAPE IMPROVEMENT PROJECT
(Type 1 Enhanced)

Date of Project Completion: April 2004

Funding & Project Management provided by:
San José Redevelopment Agency

Capital Project Management & Inspection provided by:
City of San José, Department of Public Works

Design Consultant: Bellecci & Associates Inc.

Construction Contractor: Jos. J. Albanese, Inc.

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PART 1 - INTRODUCTION

These Guidelines describe the standard procedures and requirements for City Streetscape Projects during the Planning, Design and Construction Inspection stages. A City Streetscape Project ("Project") is a landscape improvement project, which is located within the street right-of-way *and* maintained by the City of San José's Department of Transportation ("DOT"). These Guidelines are intended for use by City and Redevelopment Agency Staff, Developers, Consultants, and Contractors. The City of San José Streetscape Projects addressed by these guidelines are either City funded Capital Improvement Projects that are designed and constructed by the City of San José's Department of Public Works ("DPW"), or private development Projects that are designed and constructed by a Developer. DPW provides the review of the improvement plans and construction inspection for both City funded Capital Improvement and private development Projects.

City Streetscape Projects include the following types of landscape improvements: median island landscaping, street tree plantings in parkstrips and tree wells, and the landscaping in front of soundwalls ("back-ups"). On June 9, 1994, the City Council approved a Median Island Landscape Program for median island development, which distinguished the type of landscaping required in median islands by the source of funding for maintenance: Type 1 - General Funds and Type 2 - Special District Funds. General definitions of Type 1, Type 1 Enhanced & Type 2 Projects are provided in Part 2 of these Guidelines. Refer to Appendix L for a copy of the City Council Approval Memo for the Median Island Landscape Program.

These Guidelines address the requirements of Landscape Improvement Plans for City Streetscape Projects that include detailed construction plans and specifications, which shall be hereafter referred to as "Project Landscape Improvement Plans". The Project Landscape Improvement Plans shall be designed by a Landscape Architect with a current State of California license ("Project Landscape Architect"). These Guidelines are to be used in conjunction with the DPW Standard Landscape Details and Specifications for City Streetscape Projects. Street improvements such as new median island curbing, sidewalks and street paving are outside the scope of these guidelines. Refer to the current DPW Standard Details and Specifications for the standards that apply to street improvement plans. The Project Landscape Architect and Contractor are required to comply with all relevant State regulations, City Municipal Codes and City Council Policies in the design and construction of City Streetscape Projects.

These Guidelines do not cover the Project requirements for planning permits and environmental clearances by the City's Department of Planning, Building and Code Enforcement. These Guidelines do not address the procedures for bid and award of construction contracts for City funded Capital Improvement Projects. Park-like landscape

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improvements such as lakes, turf sport fields and play equipment, are not addressed in these Guidelines, even if these facilities are maintained by DOT with Special District Funding.

These Guidelines are not intended to supersede the guidelines or requirements of any other City Department that may have jurisdiction over the Project site (General Plans, Specific Plans, Public Art). Nor do these Guidelines supersede any requirements from outside Agencies such as Caltrans or the Santa Clara Valley Water District that may also have jurisdiction over the Project site. General Projects located downtown shall also comply with the current San José Redevelopment Agency ("SJRA") Greater Downtown Streetscape Master Plan.

- END OF PART 1 -

PART 2 - GENERAL DEFINITIONS OF TYPE 1, TYPE 1 ENHANCED & TYPE 2 CITY STREETSCAPE PROJECTS

- 2.1 **Type 1 City Streetscape Projects:** The maintenance for Type 1 Projects is paid for by the City's General Fund. Due to funding constraints, Type 1 Streetscapes are required to be low maintenance. High maintenance plantings of ground covers, perennials, turf and hedges are not allowed in Type 1 Projects. Ornamental structures such as water features and arbors are also not allowed in Type 1 Projects. An automatic, water-efficient irrigation system is required for all landscape improvements. The proposed design shall be coordinated with the existing streetscape. Refer to Appendix A for a detail of the standard features of Type 1 City Streetscape Projects. The following list describes the major elements required in standard Type 1 City Streetscape Projects.

2.1.1 **Type 1 Median Islands:**

- **Plant Materials:** Trees shall be planted the entire length of the planting areas in median islands, using the clearances described in Part 4.16.4 and Appendices A, D & E. The enhancement of median islands with shrubs and ground covers is allowed in Type 1 Projects only with advanced approval during the Planning Permit Stage; refer to Parts 2.2 and 4.1.
- **Decorative Median Paving:** All paving installed within median islands shall be decorative, with the City standard being concrete interlocking pavers such as Old Country Cobblestone Pavers manufactured by McNear or an approved equal. The use

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of river cobblestone paving is discouraged and, in general, not allowed in Redevelopment Agency areas. The narrow nose of the median, adjacent to the turn pocket, shall be paved with decorative paving. The designer is encouraged to be creative with paving and banding patterns.

- **Ground surface treatment in planting areas:** 4" deep layer of decorative gravel. The standard for decorative gravel is granite, ¾" minimum to 1-1/2" maximum size and gold in color.
- **Maintenance Band:** A 12" wide concrete maintenance band shall be provided between the edge of the planting areas and the curb, to provide maintenance access. The maintenance band shall be constructed with decorative paving.
- **Topsoil:** Provide a 30" deep layer of approved topsoil in planting areas. After approval of topsoil submittal, soil amendments shall be incorporated into the top 6" layer per Project specifications.
- **Moisture barriers and root barriers:** For medians with extruded curbs, install moisture barriers at the perimeter of the planting areas. Provide thicker moisture barriers, which double as root barriers, in planting areas with tree plantings.
- **Weed barrier fabric:** Install weed barrier fabric to provide weed control under gravel in all planting areas. The standard is woven, polypropylene.

2.1.2 **Type 1 Back-Ups:**

- **Plant Materials:** Trees shall be planted the entire length of the planting areas in Type 1 Back-ups, using the clearances described in Part 4.16.4 and Appendices A, B & C. In addition to trees, plantings of low maintenance shrubs are required in front of soundwalls. Access for litter removal by maintenance staff shall be provided around shrubs and trees. Plantings of turf, shrubs, groundcovers and/or perennials are not allowed in Type 1 median islands.
- **Root Barriers:** Provide root barriers at sidewalks to protect sidewalks from tree root damage.
- **Topsoil:** Provide a 30" deep layer of approved topsoil in planting areas. After approval of topsoil submittal, soil amendments shall be incorporated into the top 6" layer per Project specifications.
- **Vines:** Self-supporting or clinging vines shall be planted on soundwalls, as a visual buffer and to help minimize graffiti.

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Steel vine supports area required for non-clinging vines.

- **Ground surface treatment required in all planting areas:** 3" deep layer of mulch. The standard for mulch is BFI screened, medium size and brown in color made from recycled yard trimmings, or an approved equal.
- **Weed barrier fabric:** Install weed barrier fabric to provide weed control under gravel in all planting areas. The standard is woven, polypropylene.
- **Separator bands at limits of City right of way:** Landscaped areas to be maintained by the City are to be delineated from adjacent landscape areas that are to be privately maintained with 12" wide concrete separator bands.
- **Soundwalls:** Soundwalls are to be located on adjacent private property. The City of San José provides graffiti removal only on the side of the wall facing the street, as funding is made available through the Anti-Graffiti Program.

2.1.3 Type 1 Parkstrips & Tree Wells:

- **Sizing of Parkstrips & Tree Wells:** Standard tree wells are 5'x 4' in size with 35' o.c. maximum spacing, and standard parkstrips are 4' wide. The species of street trees selected for the Project shall take into consideration these dimensions. Dimensions must be increased for larger species of trees.
- **Plant Materials:** Trees shall be planted the entire length of the parkstrip, or in tree wells, using the clearances described in Part 4.16.4 and Appendices A, B & C. Plantings of turf, shrubs, groundcovers and/or perennials are not allowed in Type 1 parkstrips and tree wells.
- **Root Barriers:** Provide root barriers at sidewalks to protect sidewalks from tree root damage.
- **Topsoil:** Provide a 30" deep layer of approved topsoil in planting areas. After approval of topsoil submittal, soil amendments shall be incorporated into the top 6" layer per Project specifications.
- **Ground surface treatment:** 4" deep layer of decomposed granite. The standard for decomposed granite is 4" layer of decomposed granite fines, gold in color.
- **Weed barrier fabric:** Install weed barrier fabric to provide weed control under gravel in all planting areas. The standard is woven, polypropylene.

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- **Separator bands at limits of City right of way:** Landscaped areas to be maintained by the City are to be delineated from adjacent landscape areas that are to be privately maintained with 12" wide concrete separator bands.

2.2 Type 1 Enhanced City Streetscape Projects: Type 1 Enhanced Projects include plantings of low maintenance shrubs in select median islands, but require approval during Planning Permit Stage. Type 1 Enhanced Projects are classified as Specialty Improvements and require conceptual plans; refer to Part 4.1. All other requirements for Type 1 Projects apply to Type 1 Enhanced Projects; refer to Part 2.1.

2.3 Type 2 City Streetscape Projects: The maintenance for Type 2 Projects is paid for by funding from Special Districts. Type 2 Projects can include landscaping that requires higher levels of maintenance such as shrubs and ground cover plantings in medians and parkstrips, and turf areas in Back-ups. However, maintenance costs are still a concern for Type 2 Projects and the Project Landscape Architect shall take that issue into consideration during the design. Refer to Part 4.1 for a description of Specialty Improvements that require approval during the Planning Phase and conceptual plans. An automatic water-efficient irrigation system is required for all landscape improvements. The proposed design should be coordinated with the existing streetscape. Refer to Appendix A for a detail of the standard features of Type 2 City Streetscape Projects. The following list describes the major elements required in standard Type 2 City Streetscape Projects.

2.3.1 Type 2 Median Islands:

- **Plant Materials:** Trees shall be planted the entire length of the planting areas in median islands, using the clearances described in Part 4.16.4 and Appendices A, D & E. Plantings of shrubs, groundcovers and/or perennials are allowed in Type 2 median islands, but shall not exceed 30" in height at maturity. Turf is not allowed in median islands.
- **Decorative Median Paving:** All paving installed within median islands shall be decorative, with the City standard being concrete interlocking pavers such as Old Country Cobblestone Pavers manufactured by McNear or an approved equal. The use of river cobblestone paving is discouraged and, in general, not allowed in Redevelopment Agency areas. The narrow nose of the median, adjacent to the turn pocket, shall be paved with decorative paving. The designer is encouraged to be creative with paving and banding patterns.

GUIDELINES FOR THE PLANNING, DESIGN AND INSPECTION
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- **Maintenance Band:** A 12" wide concrete maintenance band shall be provided between the edge of the planting areas and the curb to provide maintenance access. The maintenance band shall be constructed with decorative paving.
- **Ground surface treatments for planting areas:** 3" deep layer of mulch. The standard for mulch is BFI screened, medium size and brown in color made from recycled yard trimmings, or an approved equal.
- **Weed barrier fabric:** Install weed barrier fabric to provide weed control under gravel in all planting areas. The standard is woven, polypropylene.
- **Approved Topsoil:** Provide a 30" deep layer of approved topsoil in planting areas. After approval of topsoil submittal, soil amendments shall be incorporated into the top 6" layer per Project specifications.
- **Moisture barriers and root barriers:** For medians with extruded curbs, install moisture barriers at the perimeter of the planting areas. Provide thicker moisture barriers, which double as root barriers, in planting areas with tree plantings.

2.3.2 **Type 2 Back-Ups:**

- **Plant Materials:** Trees shall be planted the entire length of the planting areas in Type 2 Back-ups, using the clearances described in Part 4.16.4 and Appendices A, B & C. In addition to trees, plantings of shrubs, groundcovers, turf and/or perennials are required in front of soundwalls to provide a visual buffer.
- **Root Barriers:** Provide root barriers at sidewalks to protect sidewalks from tree root damage.
- **Topsoil:** Provide a 30" deep layer of approved topsoil in planting areas. After approval of topsoil submittal, soil amendments shall be incorporated into the top 6" layer per Project specifications.
- **Planting areas:** Trees, turf, shrubs, perennials and/or groundcovers are allowed in Type 2 Back-ups.
- **Vines:** Self-supporting or clinging vines shall be planted on soundwalls, as a visual buffer and to help minimize graffiti. Steel vine supports area required for non-clinging vines.
- **Ground surface treatment required in all planting areas:** 3" deep layer of mulch. The standard for mulch is BFI screened, medium size and brown in color made from recycled yard

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trimmings, or an approved equal.

- **Weed barrier fabric:** Install weed barrier fabric to provide weed control under gravel in all planting areas. The standard is woven, polypropylene.
- **Separator bands at limits of City right of way:** Landscaped areas to be maintained by the City are to be delineated from adjacent landscape areas that are to be privately maintained with 12" wide concrete separator bands.
- **Mowbands:** Turf areas shall be separated from other types of planting areas with 12" wide x 6" deep concrete mowbands, or paving, to facilitate power edging.
- **Soundwalls:** Soundwalls are to be located on adjacent private property. Graffiti removal is provided by Special District funding only on the side of the wall facing the street as funding is made available.

2.3.3. Type 2 Parkstrips & Tree Wells:

- **Parkstrips & Tree Wells:** Standard tree wells are 5' x 4' in size with 35' o.c. maximum spacing, and standard parkstrips are 4' wide. The species of street trees selected for the Project shall take into consideration these dimensions. Dimensions must be increased for larger species of trees.
- **Plant Materials:** Trees shall be planted the entire length of the parkstrip, or in tree wells, using the clearances described in Part 4.16.4 and Appendices A, B & C. Plantings of shrubs, groundcovers and/or perennials are allowed in Type 2 parkstrips and tree wells. Turf is allowed in Type 2 parkstrips. Shrubs, perennials and/or groundcovers shall not exceed 30" in height at maturity. Decomposed granite surface treatment can be substituted for the plantings of shrubs, perennials and/or groundcovers in areas designed for foot traffic.
- **Root Barriers:** Provide root barriers at sidewalks to protect sidewalks from tree root damage.
- **Topsoil:** Provide a 30" deep layer of approved topsoil in planting areas. After approval of topsoil submittal, soil amendments shall be incorporated into the top 6" layer per Project specifications.
- **Ground surface treatment required in all planting areas:** 3" deep layer of mulch. The standard for mulch is BFI screened, medium size and brown in color made from recycled yard trimmings, or an approved equal. The standard for decomposed

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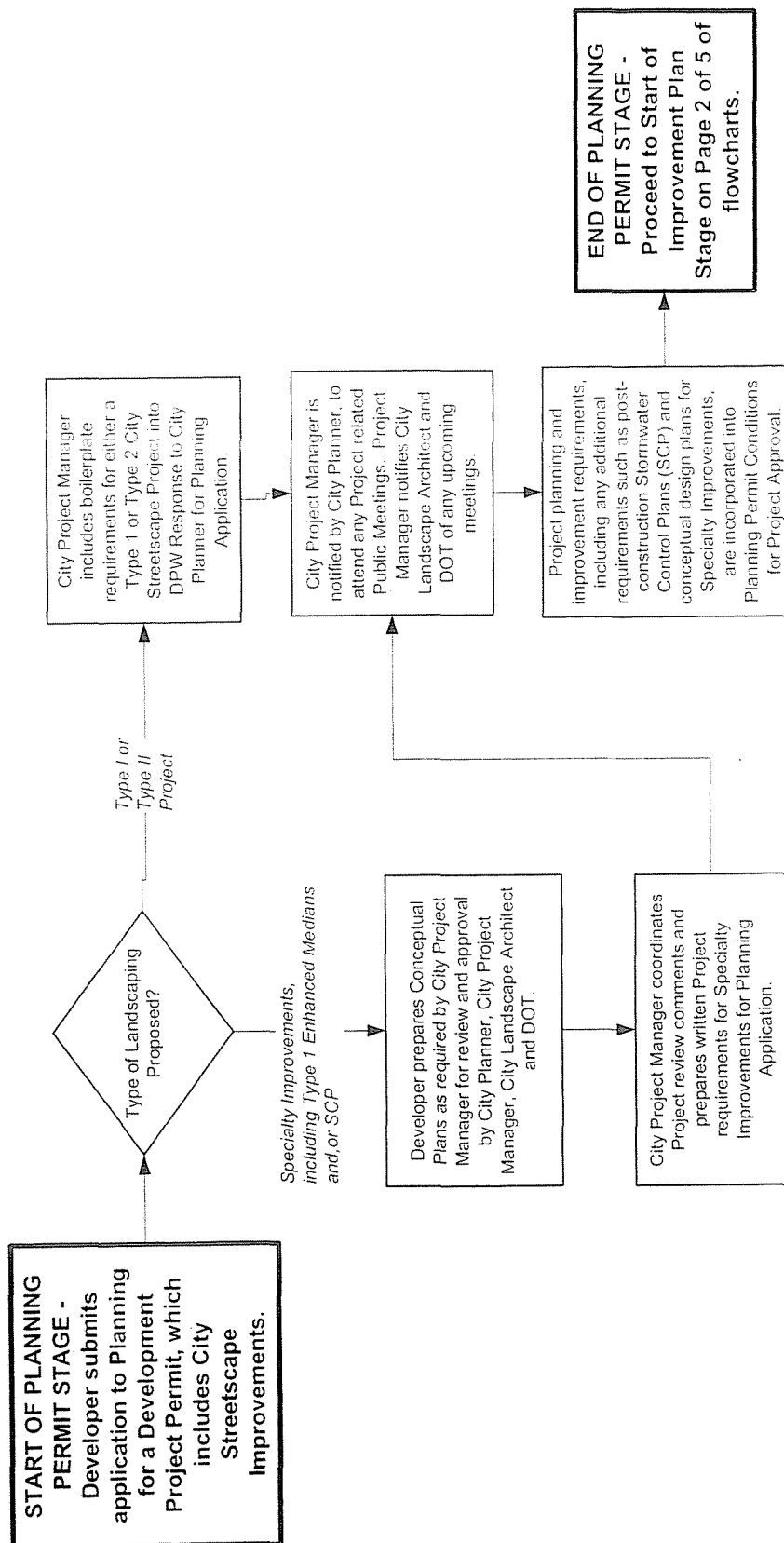
- granite is 4" layer of decomposed granite fines, gold in color.
- **Weed barrier fabric:** Install weed barrier fabric to provide weed control under gravel in all planting areas. The standard is woven, polypropylene.
- **Separator bands at limits of City right of way:** Landscaped areas to be maintained by the City are to be delineated from adjacent landscape areas that are to be privately maintained with 12" wide concrete separator bands.
- **Mowbands:** Turf areas shall be separated from other types of planting areas with 12" wide x 6" deep concrete mowbands, or paving, to facilitate power edging.

-END OF PART 2-

PART 3 - PROCEDURES FOR CITY STREETSCAPE PROJECTS BUILT BY PRIVATE DEVELOPERS

The flow charts shown on the following pages provide a general description of the required reviews and approvals during Planning Permit, Improvement Plan and Inspection stages of private development Projects. Private development Projects are also known as turnkey Projects. Project requirements and approvals are not, however, limited to the following procedures:

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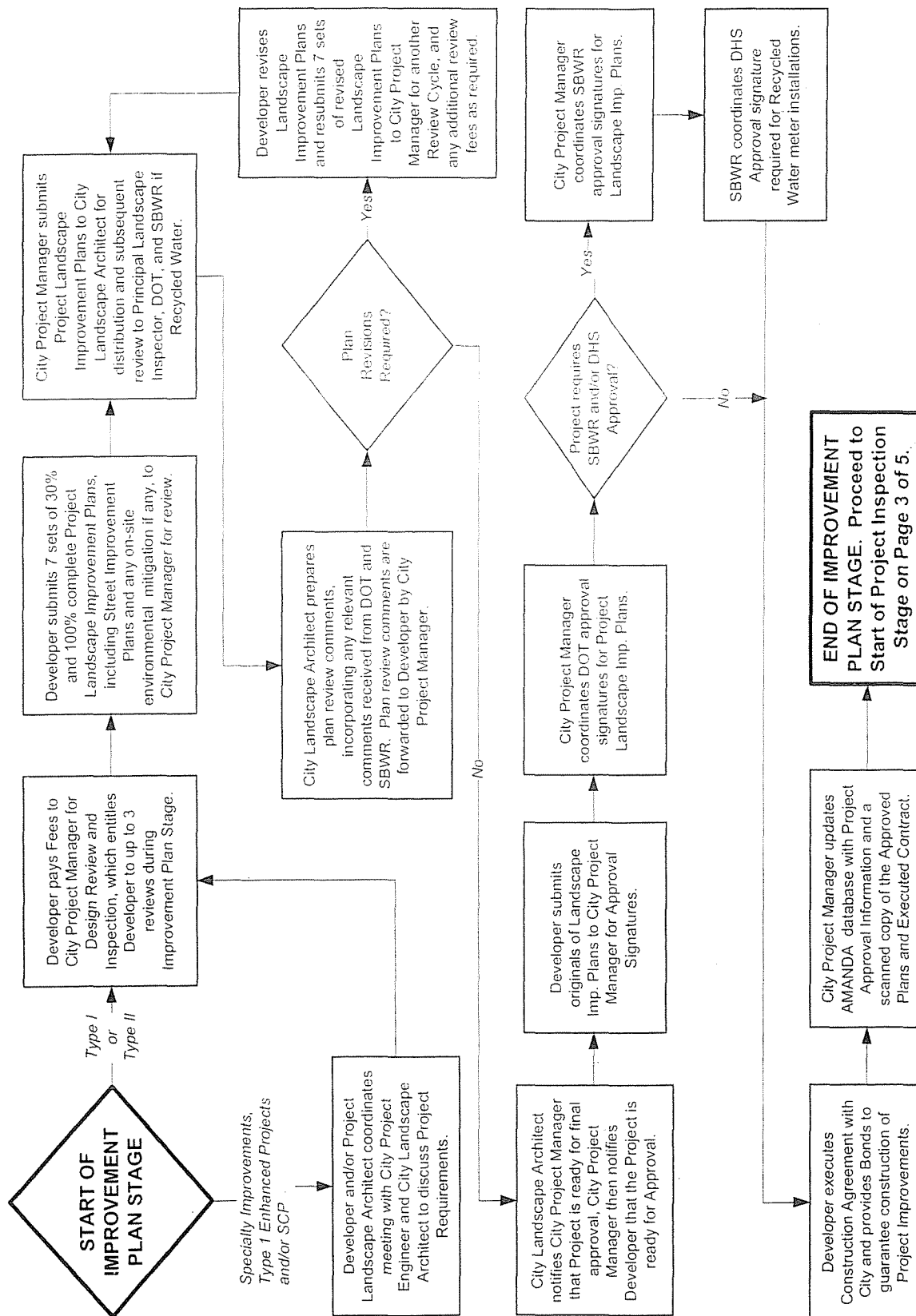


NOTES:
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Planning Permit Stage

Private Development City Streetscape Projects

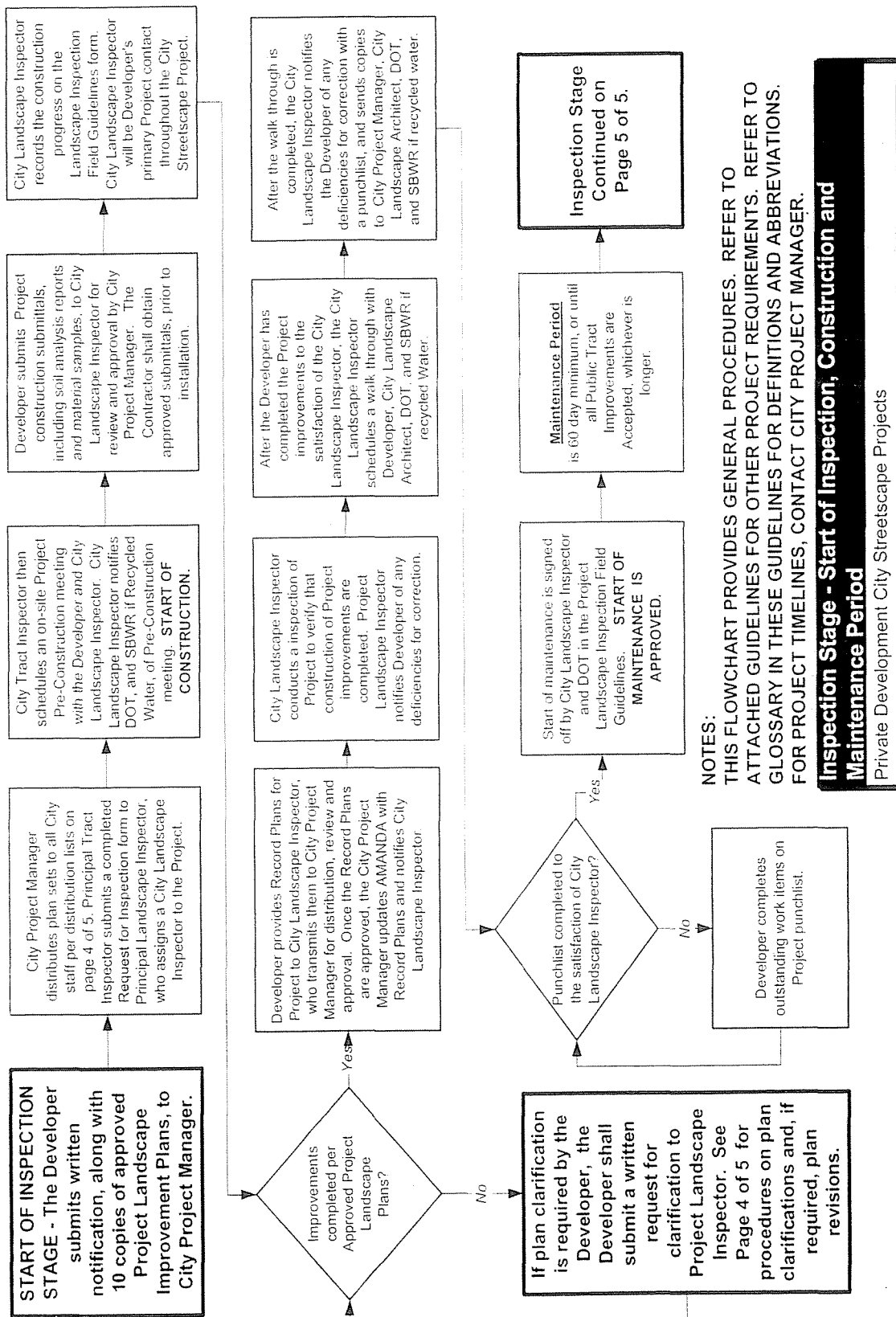
GUIDELINES FOR THE PLANNING, DESIGN AND INSPECTION OF CITY STREETSCAPE PROJECTS



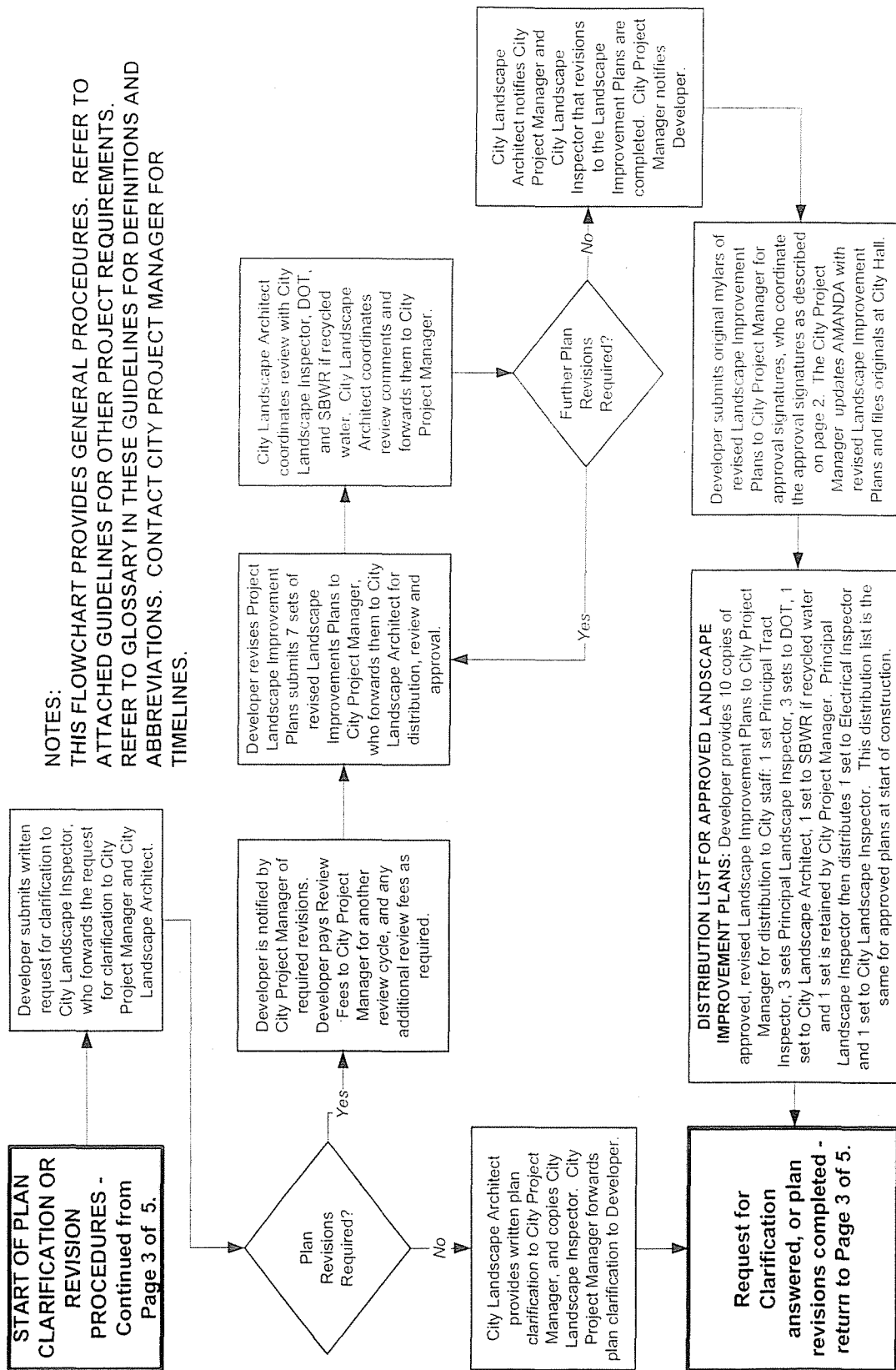
Improvement Plan Stage
Private Development City Streetscape Projects

NOTES:
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GUIDELINES FOR THE PLANNING, DESIGN AND INSPECTION OF CITY STREETSCAPE PROJECTS



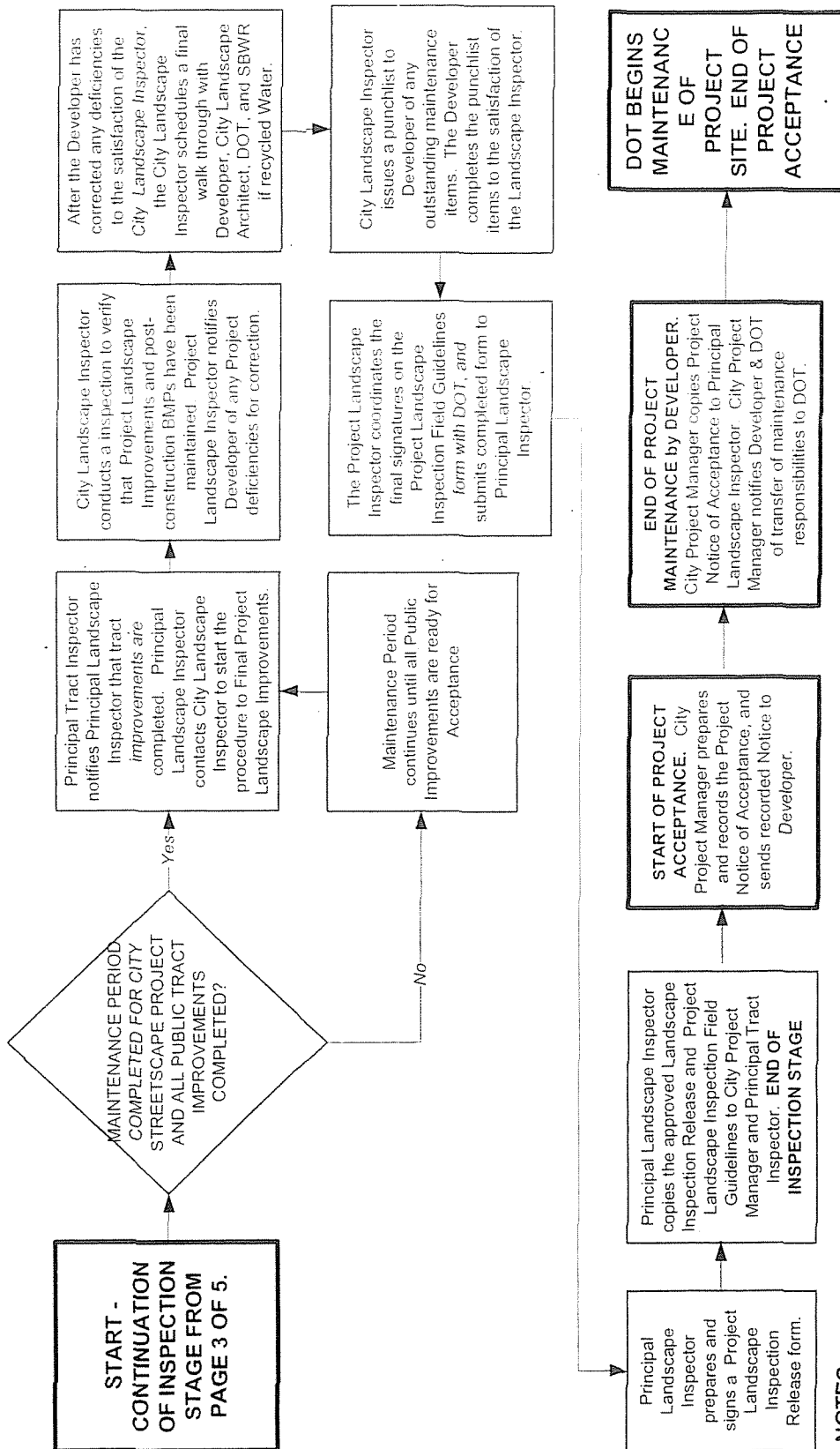
GUIDELINES FOR THE PLANNING, DESIGN AND INSPECTION
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NOTES:
THIS FLOWCHART PROVIDES GENERAL PROCEDURES. REFER TO ATTACHED GUIDELINES FOR OTHER PROJECT REQUIREMENTS. REFER TO GLOSSARY IN THESE GUIDELINES FOR DEFINITIONS AND ABBREVIATIONS. CONTACT CITY PROJECT MANAGER FOR TIMELINES.

Inspection Stage - Plan Clarifications and/or Plan Revisions
Private Development City Streetscape Projects

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NOTES:
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Inspection Stage - End of Maintenance Period and Project Acceptance

PRIVATE DEVELOPMENT CITY STREETSCAPE PROJECTS

-END OF PART 3-

PART 4 - DESIGN REQUIREMENTS

PLANNING PERMIT STAGE

- 4.1 Specialty Improvements and Conceptual Plans:** Landscape improvements proposed for City Streetscape Projects that are outside the scope of the standards for Type 1 & 2 Projects, are classified as Specialty Improvements. Specialty Improvements include, but are not limited to, Type 1 enhanced medians, environmental mitigation, traffic calming, water features, ponds, lakes, plazas, park-like landscaping, parking lots, trails, stairways, large slopes, retaining walls and bio-retention swales or ponds.

Specialty Improvements require conceptual design plans of the proposed Project landscape and engineering improvements. These conceptual plans shall be prepared by the Project Landscape Architect, and shall be reviewed and approved by the City Planner, City Project Manager and DOT during the Planning Permit stage of the Project. The conceptual design plans shall be to scale, and have sufficient information to identify the basic scope of the improvements. The City Planner shall notify the City Project Manager of any impending public outreach meetings that shall include presentations related to the Project.

- 4.2 Environmental Requirements:** Projects are conditioned by the Department of Planning, Building and Code Enforcement ("PB&CE") for environmental mitigation or other environmental requirements during the review of the Project Planning Permit. Project environmental requirements and mitigation are not addressed by these guidelines. The Project Landscape Architect shall be responsible to include any additional improvements required by PB&CE in the Project Landscape Improvement Plans.
- 4.3 Existing Street Trees:** A street tree is defined as any tree located in the public right of way, greater than 6 feet in height. The Project Landscape Architect shall submit the 35% completed Project Landscape Improvements Plans to the City Planner and the City Project Manager during the environmental review, indicating the locations of any street trees proposed to be removed. The trunk size and species of the street tree shall be noted on the plans. Street trees are under the jurisdiction of the City Arborist in DOT. Street tree planting and removals requires the review and approval of the City Arborist.

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For private development Projects, a permit from DOT is required for the removal or pruning of a street tree. As part of the tree removal permit approval process, the City Arborist will post the street tree with a public notice, opening the process up to public comment.

If the Project proposed any improvements within the drip line of an existing street tree to remain, the Project Landscape Architect shall be required to provide an Arborist Report that includes an assessment of the impact of the proposed improvements to the tree and any recommendations for the preservation of the tree. The Project Arborist Report shall be submitted to the City Planner and the City Project Manager for review and approval. The City Project Manager will coordinate the review of the Arborist Report with the City Arborist.

- 4.4 **Recycled Water Requirements:** In order to comply with the City Council's Green Building Policy to limit or eliminate the use of potable water for landscape irrigation systems, all Project irrigation systems shall be designed for recycled water; refer to Part 4.17.14. The City's Municipal Code allows that recycled water irrigation systems shall not be required where the Director of Planning grants an exemption on the basis that recycled water is not available, and will not be available in the foreseeable future, to serve the Project site.
- 4.5 **Stormwater Pollution Control Requirements:** Projects are conditioned by the Department of Planning, Building and Code Enforcement for stormwater pollution prevention during the Project Planning Permit Application Stage. The City of San José is a co-permittee of the Santa Clara Valley Urban Runoff Pollution Prevention Program ("SCVURPPP"), and has developed an Urban Runoff Management Plan ("URMP"). The State Water Resources Control Board ("SWRCB") issues an area wide National Pollutant Discharge Elimination System MS4 Permit ("NPDES MS4 Permit") to SCVURPPP, that includes the City of San José. All Projects shall comply with the stormwater requirements of Permit Provision C.3 of the NPDES MS4 Permit for new development and redevelopment projects, in order to minimize and eliminate non-point source water pollution and stormwater run-off caused by construction and development from entering the storm drain system.

The stormwater pollution prevention treatments required for City Streetscape Projects generally fall into two categories: 1) construction treatments or practices and 2) post-construction site design measures, collectively known as "Best Management Practices, or "BMPs":

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4.5.1 Construction BMPs:

Construction BMPs are treatments or practices implemented by the Contractor, that protect water quality during construction by preventing any erosion or sediment from moving off the Project construction site into receiving waters such as storm sewer drain inlets, creeks and rivers. The construction BMPs shall be included in the Project Landscape Improvement Plans, refer to Part 4.13.

Refer to these documents for further requirements: "Blueprint for a Clean Bay" by Bay Area Stormwater Management Agencies Association ("BASMAA"), "Guidelines for Construction Projects" and "Erosion & Sediment Control Field Manual" by SWRCB.

4.5.2 Post-Construction BMPs:

Post-construction BMPs include site design measures and permanent stormwater controls that remain in place after construction, and throughout the life of the Project to minimize stormwater and pollution discharges. Post-construction BMPs shall be incorporated into all Landscape Improvement Plans, for new or redeveloped Projects, to the maximum extent possible. The Project Landscape Improvement Plans shall comply with City Policy for Post-Construction and the City Policy for Post-Construction Urban Runoff Management in the design of the Project. Numerically sized post-construction stormwater BMPs shall be integrated in the Project design as required by these City policies.

Refer to these documents for further information: "Start at the Source" by BASMAA, C.3 Stormwater Handbook by the SCVURPPP, "Guidance Manual on Selection of Stormwater Quality Control Measures" by the City of San José Department of Planning, Building and Code Enforcement. Refer to the City website for more information: www.sanjoseca.gov/esd/water-pollution-prevention.

IMPROVEMENT PLAN STAGE

- 4.6 Preliminary Engineering:** The Project Landscape Architect shall review the Project requirements with the City Project Manager prior to the start of design. The purpose of this discussion is to review the Project Planning Permit requirements and the DPW Standard Landscape Details and Specifications for City Streetscape Projects that may apply to the Project.

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The Project Landscape Architect shall verify the recycled water and stormwater pollution prevention requirements that apply to the Project. The City Project Manager may require a Project coordination meeting with the Project Landscape Architect prior to the start of design.

The Project Landscape Architect shall provide all the background information required to proceed with the preparation of the base plans for the Landscape Improvement Plans including, but not limited to, the following: site analysis, existing utility search with utility companies, topographic survey and soil analysis report; refer to Part 4.9. The topographic survey shall provide spot elevations and the locations of all existing site features including, but not limited to, the following: survey monuments, manholes, easements, rights-of-way, curbs, gutters, street trees, curb drain inlets, driveways, and corner ramps, fire hydrants, traffic signals, streetlights and signs. For specialty improvements, the City Project Manager may require 1' elevation contour lines on the topographic survey for the Project site.

The Project Landscape Architect shall contact the City Arborist for their preliminary recommendations on the selection of street trees for the Project.

- 4.7 Coordination of Landscape Improvement Plans with Engineering Improvement Plans:** The Project Landscape Architect is responsible for coordinating the Project Landscape Improvement Plans with any engineering improvement plans included in the Project scope of work, during all stages of the Project. Locations of the electrical and water supply meters for the Project irrigation system shall be shown on the Project Landscape Improvement Plans. The Project Landscape Architect shall also indicate the points of connections to the electrical and water supplies for the irrigation systems, and provide references to the engineering plans as required.
- 4.8 Existing Survey Monuments and Utilities:** All existing City of San José survey monuments located within the Project limits of work shall be identified on the Project Landscape Improvement Plans and protected in place as shown in the DPW Standard Landscape Details and Specifications for City Streetscape Projects. Utility lines, including storm and sanitary sewer, shall be shown on the Project Landscape Improvement Plans and protected in place as required.
- 4.9 Topsoil Report and Design:** 30 inches is the standard depth for approved topsoil in all Project planting areas; refer to Parts 2.1, 2.2 & 2.3. This standard depth for approved topsoil can be revised to 18 inches in planting areas designed for shrubs, ground covers and/or perennials only, where trees

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have been omitted.

The Project Landscape Architect shall provide the services of a qualified soil analysis laboratory ("soil lab") during preliminary engineering to take samples of the existing native topsoils located at the Project site and prepare a soil analysis report, in order to determine if the existing topsoils are in compliance with the DPW Standard Landscape Details and Specifications for City Streetscape Projects for approved topsoil. The soil lab shall not, however, provide recommendations for soil preparation and amendments, until the existing native topsoils are determined to be in compliance and have been approved for use at the Project site by the City Project Manager. The Project Landscape Architect shall provide the soil lab with a copy of the current DPW Standard Landscape Details and Specifications for City Streetscape Projects that contains the requirements for approved topsoil, the Project name, City project file number, and a Project site map for reference purposes.

The soil lab shall be the Soil and Plant Laboratory, Inc. located in Santa Clara, CA, or an approved equal. The soil analysis report shall be an A05, provided by the Soil and Plant Laboratory, Inc. or an approved equal. The A05 soil analysis report shall include soil sample testing data, the analysis of that data, and a determination that the existing soil at the Project site is compliant with the DPW Standard Landscape Details and Specifications for City Streetscape Projects for approved topsoil.

If indications of residual herbicides are found at the Project site by the soil lab, then the Project Landscape Architect shall provide the services of the soil lab to take samples at the Project site and provide a Growth Trail Bioassay for the detection of residual herbicides. The Growth Trail Bioassay shall be the M04, provided by the Soil and Plant Laboratory, Inc. or an approved equal.

The soil lab shall obtain soil samples from the Project site for the soil analysis report. The soil samples shall be obtained and tested by the soil lab in the following depth zones: 2" to 18" depth and the 18" to 30" depth. The soil lab shall take separate soil samples in the field, in each depth zone, for each different soil type occurring on-site, so that an accurate representation of the site is provided by the Project soil analysis report. The soil analysis report shall include the Project name and location, the City file number, and the Project Landscape Architect's contact information for reference purposes. The soil lab shall also include a Project site map with the locations of where the soil samples were taken clearly marked on it, as an

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attachment to the soil analysis report. Once the soil lab has completed both the field sampling, soil testing, and the soil analysis report for the existing native topsoils found at the Project site, the soil lab will submit copies of the soil analysis report with samples of the native topsoil directly to the City Project Manager and the Project Landscape Architect for review and approval. The City Project Manager shall provide a copy to DOT and coordinate their comments in their review.

If the existing native topsoils are determined by the soils lab not to be in strict compliance with the DPW Standard Landscape Details and Specifications, or residual herbicides are detected, the City Project Manager shall then notify the Project Landscape Architect that the removal and replacement of the existing native soil at the Project site with import topsoils shall be required. The Project Landscape Architect shall incorporate provisions into the Project Landscape Improvement Plans to remove and replace the top layer of soil with approved import topsoil. The import topsoil shall match the physical properties of the native soils as closely as possible, but fall within the DPW Standard Landscape Details and Specifications for City Streetscape Projects for import topsoil.

If the native topsoils at the Project site are determined by the soil lab to be in compliance with the specifications for import topsoil contained in the DPW Standard Landscape Details and Specifications for City Streetscape Projects, then the City Project Manager shall approve the existing native topsoils for use at the Project site. The City Project Manager shall then provide DOT with a copy of the soil analysis report for the approved topsoil. The Project Landscape Architect will then notify the soil lab to provide recommendations from the soil lab for the preparation and soil amendments for the existing topsoil and incorporate them into the Project Landscape Improvement Plans. The soil lab shall provide a copy of these recommendations directly to the City Project Manager, and the City Project Manager shall provide a copy to DOT.

The Project Landscape Architect shall select plant material based on the characteristics of the topsoils approved for the Project site.

- 4.10 Construction of New Median Islands in Existing Streets:** For Projects that include the construction of new median islands in existing street pavement, the standard design for topsoil in the planting areas is to remove the existing subgrade to a depth of 30" and replace with approved import topsoil. The purpose of this excavation is to provide the sufficient amount of topsoil in the new planting areas, which is required for optimum plant

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growth and to facilitate trenching for irrigation lines. The installation of the import topsoil layer throughout the planting areas in Type 1 median islands will also allow for shrub and ground cover plantings in the future, allowing the community to enhance their streetscape. In the event that the Project Landscape Architect proposes to leave the existing subgrade beneath the street pavement in place to use as topsoil, then soil testing shall be required.

The Project Landscape Architect shall provide the City Project Manager with a location plan for the proposed pavement corings. The City will obtain the soil samples with pavement corings during preliminary engineering. The Project Landscape Architect shall provide the services of the soil lab during preliminary engineering to obtain the soil samples from the City Project Manager and prepare a soil analysis report, in order to determine if the existing topsoils are in compliance with the DPW Standard Landscape Details and Specifications for City Streetscape Projects for approved topsoil; refer to Part 4.9.

- 4.11 Title Blocks and Base Plans:** Every sheet and base plan included in the Project Landscape Improvement Plan set shall be in a 24" x 36" size format and contain a title block, a signature block for City approval signatures, and a revision block. The City recommends the use of the standard DPW title block for the Project base plans. Electronic copies of the standard DPW title block are available in CAD on a computer disk from the City Project Manager.

The title blocks shall contain the following information: Project name, City Project file number, scale and north arrow (where applicable), name and phone number of the Project Landscape Architect or Engineer, the California License Number of the Project Landscape Architect or Engineer, and the expiration date of their License Number. For private development Projects, the City Project file number is either a 3- number or a Tract number.

The scale of the base plans shall be Engineer's 1" = 20', unless otherwise approved by the City Project Manager. Streets names, adjacent conditions and land uses shall be identified on the Project base plans. The limit of work line shall be shown on the Project base plans. Only areas within the public right-of-way, or in a public easement, that are to be maintained by the City shall be include within the Project limits of work. The Project Landscape Architect is responsible for verifying these limits of work with the City Project Manager.

If there is more than one base plan, include a key map on every sheet that

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shows the location of the work on that sheet in relation to the entire Project site.

The plan symbols used for curbs, utilities etc. shall conform to standard Legend found in the DPW Standard Details. The Project Landscape Architect shall incorporate all the Project information obtained in preliminary engineering into the base plans and/or existing conditions plans; refer to Part 4.6. The Project Landscape Architect shall show the existing and proposed median islands on the Project base maps, and update this information with any revisions to the median island geometrics, as required by the City Project Manager. Existing features or conditions shall be dashed or screened, and proposed improvements shall be solid and darker.

- 4.12 Cover Sheet:** A cover sheet is required for the Project Landscape Improvement Plans. A separate cover sheet is required for Landscape Improvement Plans in the event that they are embedded within the Engineering Street Improvement Plans. The Project cover sheet shall include the following information: Project Title, City Project file number, City signature block for Project approval, Location and Vicinity Maps, and sheet index. The Location Map shows the Project site location in relationship to freeway exits and major City streets. The Vicinity Map shows a detail map of the streets and other important landmarks surrounding the Project site.

For Type 1 Projects, the Project Landscape Architect shall provide the following note on the Project Cover Sheet: "TYPE 1 LANDSCAPE IMPROVEMENTS, MAINTAINED BY THE CITY WITH GENERAL FUNDS." For Type 1 Enhanced Projects, the Project Landscape Architect shall provide the following note on the Project Cover Sheet: "TYPE 1 ENHANCED LANDSCAPE IMPROVEMENTS, MAINTAINED BY THE CITY WITH GENERAL FUNDS." For Type 2 Projects, the Project Landscape Architect shall provide the following note on Project Cover Sheet: "TYPE 2 LANDSCAPE IMPROVEMENTS, MAINTAINED BY THE CITY WITH SPECIAL DISTRICT FUNDS."

For Projects with potable irrigation systems design for a future retrofit connection to recycled water, the Project Landscape Architect shall provide the following note on the Project Cover Sheet: "PROJECT IRRIGATION SYSTEM(S) DESIGNED FOR POTABLE WATER WITH A FUTURE RETROFIT CONNECTION TO RECYCLED WATER." For Projects with irrigation systems design for an immediate connection to recycled water, the Project Landscape Architect shall provide the following note on the Project

Cover Sheet: "PROJECT IRRIGATION SYSTEM(S) DESIGNED FOR AN IMMEDIATE CONNECTION TO RECYCLED WATER."

For Projects sites adjacent to soundwalls located on private property, the Project Landscape Architect shall provide the following note on the Project Cover Sheet: "SOUNDWALL MAINTENANCE IS THE RESPONSIBILITY OF THE PRIVATE PROPERTY OWNER. THE CITY OF SAN JOSÉ PROVIDES GRAFFITI ABATEMENT ON THE STREET SIDE OF THESE SOUNDWALLS ONLY, AS FUNDING IS AVAILABLE".

- 4.13 Existing Conditions, Demolition and Storm Water Pollution Prevention Plans:** Existing Conditions and Demolition shall be provided for all Projects. Storm Water Pollution Prevention Plans shall be provided for any project, as required by the State of California Regional Water Quality Control Board. A detailed and complete legend shall be provided on each Existing Conditions, Demolition and Storm Water Pollution Prevention Plan sheet included in the plan set.

The Plans shall show, but not be limited to, the following information: property lines, soundwalls, fences, utility lines, utility boxes, manholes, valves, sprinkler heads, survey monuments, streetlights, traffic signals, traffic signal loops, pull boxes, utility poles, street furnishings, trees, vegetation, buildings, sawcut lines. Existing Conditions and Demolition Plans shall identify all items to remain or be demolished, including sawcut lines.

All existing trees at the Project site to remain shall be fenced 10 feet outside the dripline with temporary chainlink fencing during construction. The temporary fencing shall be specified and shown on Project Existing Conditions and Demolition Plans. The Existing Conditions and Demolition Plan shall show the location of the temporary Project construction sign.

Any existing irrigation controllers or water service meters shown at the point of connection for new irrigation systems shall be field verified by the Project Landscape Architect. The size of the size water meter and the number of available controller stations shall be shown on the Existing Conditions and Demolition Plans.

The SWPPP improvements shall be shown on separate plans and shall be designed in compliance with State and City requirements in accordance with Sate and City requirements. The SWPPP specifies construction BMPs such

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drain inlets.

- 4.14 Construction Layout Plans:** Construction Layout Plans shall be provided for all Projects. A detailed and complete legend shall be provided on each Construction Layout Plan sheet included in the plan set. Station points shall be provided for, but not limited to, the following items: decorative paving, banding, street furnishings, trees, and tree wells. Construction detail callouts shall be provided for all proposed construction improvements.

- 4.14.1 Decorative Median Paving:** Pre-cast interlocking concrete pavers installed on concrete sub-paving are the standard for decorative paving in the median islands. Cobblestone river rock paving is not recommended. In some locations where cobblestone river rock paving has been used in existing City Streetscape Projects, cobblestone river rock paving may be used to match these areas, but only with prior approval by the City Project Manager. The Project Landscape Architect is encouraged to submit alternative suggestions for decorative paving designs for City review.

For decorative pavement layout, refer to Appendix D – Street Tree and Decorative Pavement Layout in Median Islands.

- 4.14.2 Maintenance Bands, Mowbands & Separator Bands:** Maintenance bands, a minimum of 1-foot wide, shall be provided in median islands to separate the curb from the planting areas and provide access for maintenance staff. The maintenance band in the medians shall be constructed of concrete with integral color or interlocking concrete pavers, and a minimum of 12" wide. The maintenance band shall complement the decorative median paving.

Mowbands shall be provided for turf areas. Separator bands shall be provided between plantings areas that are maintained by the City and adjacent areas that are to be privately maintained. Separator bands and mowbands shall be concrete, 8" wide x 12".

- 4.15 Grading and Drainage Plans:** Grading and Drainage Plans shall be provided for all Projects. A detailed and complete legend shall be shown on each Grading and Drainage Plan sheet included in the plan set. In areas with gravel or decomposed granite surfacing, a level grade is required.

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If the Project has been conditioned for numerically sized post-construction stormwater BMPs during the Planning Permit Stage of the Project, the required BMPs that apply to the grading and/or drainage design should be integrated into the Grading and Drainage Plan; refer to Part 4.5.2.

Sufficient spot elevations shall be shown to convey the proposed grading and drainage design. In large back-up areas show existing and proposed 1' contour lines. The City standard for storm drainlines in landscape areas maintained by the City is reinforced concrete pipe ("RCP"), 12" minimum size.

If any proposed grading or drainage is to be located within the dripline of an existing tree, the Project Landscape Architect shall be required to provide an Arborist Report with recommendations for the preservation of the tree. The Arborist Report shall be reviewed and approved by the City Arborist. The Project Landscape Architect shall incorporate the recommendations in the Project Arborist Report into the Project Landscape Improvement Plans.

Median islands shall not be crowned in order to prevent runoff and conserve irrigation water. The street paving, curbs and gutters are classified as engineering street improvements, therefore the grading and drainage of those types of improvements are not addressed in these Guidelines.

In back-up areas, positive drainage shall be provided to the curb drainage inlet in the street, or to a post-construction stormwater BMP.

4.15.1 Slopes, Stairways & Retaining Walls: Large slopes, stairways and/or retaining walls are considered Specialty Improvements; refer to Part 4.1. Sloped areas on the Project site shall be designed to allow easy access for maintenance staff and vehicles throughout the Project site. Retaining walls maybe required in sloped areas by the City Project Manager to eliminate any potential long-term erosion or maintenance problems. Stairways and retaining walls over 30" in height shall be designed by a Civil Engineer.

4.16 Planting Plans: Planting Plans shall be provided for all Projects that comply with the following requirements.

4.16.1 Selection of Plant Materials and General Design Requirements: Appendix F - General Plant Lists for City Streetscape Projects contains general recommendations of plant materials for City Streetscape Projects. The Project Landscape Architect is

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responsible to select plant material for the Project that is adapted to the site conditions, such as temperatures, frosts, soils, recycled water, solar exposure, wind etc. The City of San José is located within climate zones 14-17 described in the Sunset Western Garden Book and encompasses many microclimates. High maintenance or short-lived plant materials shall not be selected for Type 1 or Type 1 Enhanced Projects. Plant material watered by a common irrigation circuit shall have similar watering requirements. The Project Landscape Architect may also propose alternative plant material selections to those found on this list for City review. South Bay Water Re u<http://www.ci.san-jose.ca.us/sbwr/>

Dimensions shall be used for on-center spacing of the plant materials that allow adequate space for growth, to avoid over crowding of plant material at maturity and to minimize the need for pruning or edging away from paving or sidewalks during maintenance. Shrubs, ground covers, and perennials located within tree wells, parkstrips and median islands shall not exceed 30" in height.

If the Project has been conditioned for numerically sized post-construction stormwater BMPs during the Planning Permit Stage of the Project, any approved BMPs that apply to the planting design should be integrated into the Planting Plans; refer to Part 4.5.2.

4.16.2 Plant Legend and List: A detailed and complete legend shall be provided on each Planting Plan sheet included in the plan set. The Planting Plan Legend shall include items such as moisture barriers, root barriers, gravel surfacing, mulch surfacing, weed barrier fabric, decomposed granite surfacing, root barriers, and moisture barriers. These items shall be clearly shown on the Planting Plans. A Plant List shall also be provided on the Planting Plans with the following information for each species: symbol, botanical and common names, container size, quantities, dimensions for on-center spacing, spacing from edge of paving, quantities and any other special criteria. The Plant List shall provide the minimum size of the trunk caliper and canopy for trees.

4.16.3 Root and Moisture Barriers: Moisture barriers are required in medians with B3 curbs, to protect adjacent street pavement from moisture damage. Root barriers are required in parkstrips and back-up areas, to minimize damage to sidewalks from tree roots.

- 4.16.4 Tree Planting and Clearances:** Tree plantings shall be provided in medians, parkstrips, tree wells, and back-ups as long as adequate clearances are provided for soundwalls, utilities, driveways, sight visibility clearances, etc. Large sized street trees are preferred over wider avenues and boulevards, if space allows, to provide shade. As a general standard, street trees shall be spaced 35 feet on-center for larger sized species and 25 feet on-center for smaller size species. However, the spacing requirements should be verified by the City Arborist on a Project-by-Project basis. Trees shall be evenly (equidistant) spaced apart, wherever possible. Tree canopies shall not overlap more than five feet at maturity. Maximize the number of street tree plantings as space permits. Trees shall be located on the centerline of the median island to maximize the setback from the curb.

Refer to Appendices A, B, C, D and E for a graphic description of required clearances for trees. If the Project Landscape Architect proposes to deviate from the following clearances, prior approval from the City Project Manager is required on a project-by-project basis. The Project Landscape Architect shall make every effort to provide the following clearances from street trees:

- Under street tree canopies: 14-feet minimum of clearance over finish surface of street pavement, and 8-feet minimum clearance over finish surface of sidewalks.
 - Electroliner or Ornamental Pole: 20-feet minimum.
 - Soundwalls: 8-feet minimum.
 - Survey monuments: 20-feet minimum
 - Underground water and gas lines: 5-feet minimum.
 - Underground sanitary and storm sewer lines: 10-feet minimum.
 - Stop signs and other traffic control devices: 20-feet minimum.
 - Fire Hydrants: 5-feet minimum.
 - Driveways: 5-feet minimum from residential and 10-feet minimum from commercial.
 - Street corners: 40-feet minimum.
 - Edges of Pavement, mow bands and fences: 8-feet minimum
 - Avoid conflicts with tree canopies of existing street trees or existing trees on adjacent private property.
 - Trees under power lines use PG&E recommended heights.
- Refer to PG&E's Safe Tree Program website www.safetree.net

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- 4.16.5 **Standard Container Sizes:** The standard container size for trees is 15 gallon. For Redevelopment Agency funded Projects, the standard container size for trees is 24" box. The standard container size for shrubs and ground covers is five gallons. The standard container size for perennials is one gallon. Smaller container sizes may be appropriate for some plant materials, but require prior approval from the City Project Manager.
- 4.16.6 **Planting Areas:** Planting areas all require approved topsoil and surface treatments such as weed barrier fabric and mulch and/or gravel. Delineate all the planting areas on the plans so that the Contractor is clearly shown the limits of the Project planting areas. Where Project planting areas are located adjacent to existing landscape, the transition shall be shown in detail.
- 4.16.7 **Weed Barriers:** Weed barrier fabric shall be installed under mulch, decomposed granite or gravel and throughout the planting areas.
- 4.16.8 **Turf Areas:** Turf is only allowed for Type 2 Projects in back-ups and parkstrips. Avoid narrow bands of turf that are difficult to irrigate and maintain efficiently. Trees in turf areas shall be planted inside a mulched circle, 4 feet minimum in diameter. Sufficient access shall be provided for the mowers used by the maintenance crews assigned to the Project site.
- 4.16.9 **Vine Plantings:** Vine plantings are required on sound walls to minimize graffiti. Where the proposed vine species is not a self-supporting or clinging species, a steel trellis shall be provided. The design of the trellis shall be reviewed and approval by the City Project Manager.
- 4.17 **Irrigation Plans:** Irrigation Plans shall be provided that comply with the following requirements:
 - 4.17.1 **Selection of Irrigation Equipment and General Design Requirements:** The Project Landscape Architect shall refer to Part 4.4 for recycled water requirements and Appendix G for the List of Standard Irrigation Equipment required for City Streetscape Projects. Any deviations from these requirements and standards require the prior review and approval by the City Project Manager. The irrigation system, including electrical, shall be located within

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the City street right-of-way and/or public easement.

Soil types and infiltration rates shall be considered when designing irrigation systems. Plants watered by a common irrigation valve shall have the same watering requirements. Sunny and shady areas shall be on separate valves. A critical design issue for City Streetscape projects is to minimize irrigation run-off and/or over spray on streets and sidewalks.

An automatic irrigation controller shall be provided for all irrigation systems. Project controllers and irrigation systems shall not be shared with adjacent private or park property.

If there is an existing irrigation system to remain and/or be modified as part of the Project scope of design work, the Project Landscape Architect shall show the existing system and the required modification on the Irrigation Plans.

All irrigation lines shall be sleeved under pavement. Controller wires are to be installed in conduits. Show a common trench for mainlines, laterals, and conduits for controller wire wherever possible. Copper tracer wire shall be installed on all mainlines.

The minimum mainline and remote control valve size shall be 1". The minimum lateral line size shall be 1", with the exception of branch laterals that serve only one spray or bubbler head that can be 3/4" size. All irrigation lines are to be sized on plan, a sizing chart alone is not sufficient.

Provide quick coupler valves on mainlines, spaced a maximum of 80 feet apart. The size of the radius selected for each type of sprinkler head specified shall be appropriate for the dimensions of the planting area and designed to minimize over spray.

- 4.17.2 Irrigation Equipment Legend:** A detailed and complete legend shall be provided for each Irrigation Plan sheet in the plan set. The irrigation legend shall provide the following information: symbols of all equipment indicated on plans, description of equipment, name of manufacturer, and model numbers. The size, PSI, and GPM shall also be provided in the legend for each irrigation head specified.

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- 4.17.3 Valve Chart:** A valve chart shall be provided for each controller that provides the following information for each valve: valve station number, size, total GPM and PSI required at sprinkler head, number of heads per valve, and the type of landscaping serviced by the valve (master valve, trees, shrubs/ground covers, or turf).
- 4.17.4 Irrigation Design on Slopes:** Irrigation systems on slopes shall be designed so that the irrigation heads located on the top, middle, and toe of the slope are on separate valves, with the laterals laid out parallel with the contours of the slope. In-line check valves shall be provided at each sprinkler head and/or bubbler as necessary to eliminate low head drainage.
- 4.17.5 Pressure Loss Calculations:** The Project Landscape Architect shall obtain the existing water pressure in the street main from the water utility company, and prepare a pressure loss calculation at the point of connection (P.O.C.) for each irrigation system. The pressure loss calculation shall be done for the valve with the potential for the highest loss of pressure in the system (worst case). This pressure loss calculation shall be submitted with the Irrigation Plans for the review and approval of the City Project Manager; refer to Appendix H for the Irrigation Pressure Loss Calculation Form. A minimum of 5-PSI residual pressure is required in the proposed irrigation system.
- 4.17.6 Booster Pumps:** Booster pumps are required when the existing water pressure available at the site is less than the water pressure required to effectively operate the proposed irrigation system. The design of the booster pump design shall comply with the standards of the water utility company and be reviewed and approved by the City Project Manager. The booster pump shall be secured in a locked enclosure and located within the City street right-of-way and/or public easement.
- 4.17.7 Water Meter and Point of Connection:** Each irrigation system shall be metered separately, and shall have no connections to the water supply on adjacent property. Irrigation mainlines cannot be trenched under major intersections, which often creates the requirement for more than one meter at a Project site. The location of the point of connection for the irrigation system, the water supply meter, and the size of the water meter, shall be clearly noted on the Irrigation Plans. The minimum size for a San Jose Water

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Co. potable water meter is 3/4". The Project Landscape is responsible to size the water meter to provide enough capacity in the system to accommodate the proposed irrigation system with the minimum size meter, to reduce operating and maintenance costs.

The Irrigation Plans shall note at proposed water meters: "The Contractor shall pay for and coordinate the installation of the water meter by the water utility company." Water meters are typically located in parkstrip in detached sidewalks, or at the back of curb in attached sidewalks, within the street right of way. The Project Landscape Architect shall coordinate the location of the water meter with the water utility company, and any engineering improvement plans included in the Project plan set.

- 4.17.8 Pressure-Regulating valve:** A pressure-regulating valve is required for potable irrigation systems designed for a future retrofit connection to recycled water, when the existing water pressure in the street main exceeds 90 PSI. The pressure regulator for these systems shall be installed at the backflow prevention unit assembly. A pressure-regulating valve is also required on irrigation systems designed for immediate connection to recycled water. The pressure regulator for these systems shall be installed on the strainer/pressure regulator assembly. The minimum size for the pressure pressure-regulating valve is 1".

- 4.17.9 Backflow Prevention Device:** Potable irrigation systems designed for a future retrofit connection to recycled water require a backflow prevention device ("BPD") assembly at each water meter. The BPD shall be located within the street right of way or public easement, but shall not be installed in median islands. The preferred location for the BPDs is at the back of sidewalk in a back-up, if adequate street right of way or public easement is available. If no such area exists at the back of walk, then the BPD shall be located at the back of curb; however, the BPD enclosure shall not block the pedestrian thoroughfare. The water utility companies require the BPD to be located within 5 feet of the water meter. The minimum size required for the BPD and strainer is 1".

If it is not possible to locate the BPD in a back-up or at the back of curb, then the BPD can be located in the median island but only with advance approval from the water utility company. The Project Landscape Architect shall apply to the water utility company for

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their approval of an exception to locate the BPD in the median island. The Project Landscape Architect shall obtain written approval from the water utility company to locate the Project BPD in the median island, and provide a copy to the City Project Manager.

- 4.17.10 Location of Irrigation Controllers and Coordination with Electrical Plans:** The irrigation controller shall have no connections to the electrical supply on adjacent property. The Project Landscape Architect shall be responsible to coordinate the electrical connection for the irrigation controller to the electrical supply with the Project Electrical Engineer. The point of connection to the electrical supply shall be shown on the Irrigation Plans with a reference noted to the Electrical Plan.

The irrigation controller enclosure shall be located within the street right of way, but shall not be installed in median islands. The preferred location for the enclosure and cabinet is at the back of sidewalk, within street right of way or public landscape easement. If no such area exists at the back of sidewalk, then the irrigation controller enclosure shall be located near the back of curb; however, the controller enclosure shall not block the pedestrian thoroughfare.

- 4.17.11 Standard Irrigation Controller for Type 1 Projects:** The standard irrigation controller for Type 1 and Type 1 Enhanced Projects is the Rainmaster Eagle. Controller includes a wireless Internet card and flat-style antenna and 5 years of pre-paid wireless data plan with automatic daily ET downloads. The standard controller enclosure is a stainless steel, top entry VIT Strongbox that comes as a pre-fabricated unit, which includes the controller. The Eagle Controller can be specified with 6, 12, 18, 24, 30 or 36 stations. One controller per water meter is required. One Pro Max hand held radio remote control unit shall be provided for all Project sites in excess of 1,000 feet long.

Each mainline shall have a separate controller, flow sensor, and master valve. The mainline is to remain pressurized (open).

- 4.17.12 Standard Irrigation Controllers for Type 2 Projects:** The standard irrigation controller for Type 2 Projects is the Calsense ET 2000 Controller linked to the City's computerized central control.

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The standard controller enclosure is a top entry, stainless steel unit that comes as a pre-fabricated unit, which includes the controller. The Calsense Controller comes in models with 8, 12, 16, 24, 32 or 40 stations. One controller per water meter is required. One hand held radio remote control unit shall be provided for all Project sites in excess of 1000 feet long.

A new, dedicated telephone line is required for each Calsense irrigation controller to enable communications with the central control system. In some areas of the City, in lieu of a telephone line, existing radio hubs may be available that enable the irrigation controllers to communicate with the central control. The Project Landscape Architect needs to verify with the Calsense sales representative if radio hub communications are available at the Project site.

Each mainline shall have a separate controller, flow sensor, and master valve. The mainline is to remain pressurized (open).

4.17.13 Drip Irrigation: Drip irrigation systems of any sort utilizing drip emitters, micro-spray heads, and/or spaghetti tubing are not allowed in City Streetscape Projects due to the high levels of maintenance required for these types of systems.

4.17.14 Determination of Type of Recycled Water Design: The Project Landscape Architect shall determine if recycled water is available at the Project site for the proposed irrigation system. This information shall be provided by SBWR on a Project-by-Project basis. If recycled water *is not* available at the Project site for irrigation, then the Project irrigation systems shall be designed for potable water with a future retrofit connection to recycled water; refer to Part 4.17.15. If recycled water *is* available at the Project site for irrigation, then the Project irrigation systems shall be designed for an immediate connection to recycled water; refer to Part 4.17.16.

4.17.15 Potable Water Irrigation Systems Designed for a Future Retrofit Connection To Recycled Water: The following items shall be provided in the Irrigation Plans for irrigation systems designed for a future retrofit connection to recycled water:

- Project irrigation systems shall comply with the South Bay Water Recycling Program “Rules and Regulations for the

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Design and Operation of On-site Recycled Water Facilities”.
Refer to their website for more information:

www.sanjoseca.gov/sbwr

- DPW Standard Landscape Details and Specifications for City Streetscape Projects that apply to irrigation systems designed for potable water with a future retrofit connection to recycled water.
- Pipe separation between irrigation lines and any potable drinking water lines located within the Project limits of work.
- Potable water meter with a reduced pressure backflow prevention device assembly.
- General site information notes for recycled water use for each irrigation water supply meter.
- Purple irrigation main and lateral lines.
- Review and approval by SBWR for Projects with landscaped areas 10,000 square feet in size or greater, coordinated by City Project Manager.
- Any additional items required during Project review by SBWR and/or the City Project Manager.

4.17.16 Irrigation Systems Designed for an Immediate Connection To Recycled Water: The following items shall be provided in the Irrigation Plans for irrigation systems designed for immediate connection to recycled water:

- Project irrigation systems shall comply with the South Bay Water Recycling Program “Rules and Regulations for the Design and Operation of On-site Recycled Water Facilities”. Refer to their website for more information:
www.sanjoseca.gov/sbwr
- DPW Standard Landscape Details and Specifications for City Streetscape Projects that apply to irrigation systems designed for an immediate connection to recycled water.
- Recycled water meter with strainer/pressure regulator assembly.
- Purple irrigation main lines, lateral lines, and quick coupler valve cover.
- Above ground advisory signs and identification tags for recycled water system, and identification tags for any potable water lines located within the Project limits of work.
- General site information notes for recycled water use for each irrigation water supply meter.
- Pipe separation between irrigation lines and any potable

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drinking water lines located within the Project limits of work.

- Review and approval by SBWR, coordinated by City Project Manager.
- Review and approval by the State's Department of Health Services ("DHS"), coordinated by SBWR. For Projects with landscaping areas less than 50,000 feet in size, the Project Landscape Architect shall provide the City Project Manager with a Project Site Plan Map for Recycled Water Review, 8-1/2" x 11" in size, for the DHS submittal. Refer to Appendix I for a Sample Site Plan Map for Recycled Water Review. The intent of the site plan map is to facilitate the State review for these smaller sized Projects.
- Any additional items required during Project review by SBWR, DHS and/or the City Project Manager.

4.18 Estimated Operating and Maintenance Costs ("O&M Costs"): Prior to the final approval of the Project Landscape Improvement Plans, the City Project Manager will prepare an estimate of the estimated Project O&M Costs. The Project Landscape Architect shall provide the City Project Manager with the total size of the areas of decorative paving and Type 1, Type 1 Enhanced, or Type 2 landscaping to be installed with the Project improvements, and the number of new water and electrical services. The City Project Manager shall prepare an electronic Excel spreadsheet of the estimated Project O&M Costs, and submit these costs to DOT.

4.19 DPW Standard Landscape Details & Specifications for City Streetscape Projects: The Project Landscape Architect shall incorporate the DPW Standard Landscape Details and Specifications for City Streetscape Projects into the Project Landscape Improvement Plans. The DPW Standard Landscape Details and Specifications for City Streetscape Projects shall not be deleted or revised by the Consultant or developer.

Electronic files of the DPW Standard Landscape Details and Specifications for City Streetscape Projects are available from the City Project Manager on computer disk in AutoCAD format, version 2000. The specifications contained in the DPW Standard Landscape Details and Specifications for City Streetscape Projects are for private development Projects only. The DPW Standard Landscape Specifications required for City funded Capital Improvement Projects are in a separate 8-1/2" x 11" booklet format, and are available from the City Project Manager on disk, in Microsoft Word.

4.20 Additional Details and Specifications: Project Landscape Architect shall

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provide any additional details and specifications required for the Project scope of work, which are not addressed by the DPW Standard Landscape Details and Specifications for City Streetscape Projects. These additional details and specifications will require the review and approval of the City Project Manager and DOT. The proposed landscape improvements shall be designed to facilitate and reduce maintenance.

For private development Projects that require additional specifications, the specifications shall be provided in a separate 8-1/2" x 11" booklet, referenced by the Project Landscape Improvement Plans.

- 4.21 City Review of the Project Landscape Improvement Plans:** The Project Landscape Architect shall submit the 35% and 100% complete Project Landscape Improvement Plans to the City Project Manager for review and approval. A minimum of five sets of Landscape Improvement Plans are required by the City for each Project review submittal, and the submittal shall include one complete set of any street improvement plans associated with the Project. The Project Landscape Architect shall verify the number of check sets required by the City Project Manager for Project review prior to the submittal.

The 35% complete submittal shall include the following: scale, north arrow, project title, City Project number, all plan legends, plant list, existing and proposed street improvements and roadway geometrics, existing utilities and vegetation to remain, trees to be removed, right of way lines, easements and the limits of any adjacent riparian corridors and/or the top of creek banks. The 35% completed Project improvement plans shall also show the following elements of the proposed landscape improvements: soundwalls, fencing, sidewalks, mowbands, maintenance bands, separator bands, decorative median paving, trees, and points of connection for water and electrical supply.

The City Project Manager shall coordinate the Project review and provide checks sets to other City staff, such as the landscape maintenance supervisor in DOT, the DPW Principal Project Landscape Inspector, and the DPW Landscape Architect and Electrical Engineer assigned to review the design. The City Project Manager shall coordinate all the City review comments and provide them to the Project Landscape Architect.

The Project Landscape Architect shall address all the Project review comments from the City Project Manager and provide all the revisions, additions and deletions required in the City review comments. If the

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submittal is incomplete, the City Project Manager shall inform the Project Landscape Architect. The Project Landscape Architect shall revise the Project Landscape Improvement Plans and submit additional check sets to the City Project Manager for continued review.

- 4.22 Approval of Final Project Landscape Improvement Plans Prior To Construction:** After all the City review comments have been addressed to the satisfaction of the City Project Manager, and other Project approvals have been obtained from outside Agencies as required, the City Project Manager shall notify the Project Landscape Architect that the Project Landscape Improvement plans are ready for City approval signatures. The Project Landscape Architect shall then prepare originals of the Project Landscape Improvement Plans. Original 24" x 36" format plan sheets shall be CAD plot mylar, Océ mylar or photo mylar. Vellum, clear film or Sepia mylar will not be accepted. Original 8-1/2" x 11" size specifications shall be printed by a laser printer on good quality bond paper.

The Project Landscape Architect shall then stamp and sign all the original mylar sheets of the Landscape Improvement Plans, including the cover sheet, and the cover of any separate Project specification books. The other Project designers such as Structural Engineers, Civil Engineers, and Mechanical Engineers shall stamp and sign their engineering improvement plans, if such plans are included in the Project Landscape Improvement Plan set. The Project Landscape Architect shall then submit the originals of the Project Landscape Improvement Plans (including specifications), with a copy of the electronic files of the Landscape Improvement Plans and specifications on a computer CD, to City Project Manager for approval signatures.

The City Project Manager shall then coordinate the City approval signatures for the Project Landscape Improvement Plans. The City Project Manager shall then archive the original Project Landscape Improvement Plans and specifications in the City central files.

- END OF PART 4 -

PART 5 – INSPECTION REQUIREMENTS

The following items are not intended as a complete guideline to Project Inspection - but to call attention to critical items required by the Contractor during construction:

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- 5.1 Approved Project Landscape Improvement Plans:** It is the responsibility of the Contractor to construct the Project improvements per the approved Project Landscape Improvement Plans. It is the responsibility of the Contractor to have copies of the approved Project Landscape Improvement Plans with the latest plan revisions at the Project site during any construction activities.
- 5.2 Construction Permits required by Outside Agencies:** All construction permits required for the Project Landscape Improvement Plans by outside Agencies shall be obtained prior to start of construction. The Developer is responsible for obtaining these permits for private development Projects.
- 5.3 Contractor's Point of Contact with City during Construction:** During construction, the DPW City Landscape Inspector shall be the Contractor's sole point of contact for any Project related issues and/or inspections. DOT is not the Project contact for the Developer and/or the Contractor. The City Landscape Inspector shall coordinate all Project related issues, including submittals and plan revisions, with the City Project Manager. The Developer and/or the Contractor shall submit requests for any plan clarifications directly to the City Landscape Inspector.
- 5.4 Pre-Construction Meeting:** The Contractor shall attend a Project pre-construction meeting with the City Landscape Inspector, DOT, and SBWR (if inspection recycled water is required), prior to the start of construction.
- 5.5 Landscape Inspection Field Guidelines:** Refer to Appendix J for the Landscape Inspection Field Guidelines Form for City Streetscape Projects. The Landscape Inspection Field Guidelines shall be used by the Landscape Inspector to track the critical Project inspection points.
- 5.6 Landscape Submittals:** The Contractor shall deliver the landscape submittals and samples required in the Project Landscape Improvement Plans to the City Landscape Inspector in a timely fashion, for review and approval by the City Project Manager. The required Project submittals may also include traffic control plans, updates to SWPPP in response to changes in weather or construction activities, and any proposed revisions to the approved Project Schedule.

The Contractor shall be responsible to coordinate the submittals with the Landscape Inspector. The Contractor shall not install the materials at the Project prior to receiving the approved submittal. For example, import topsoil shall be approved prior to delivery at the Project site, irrigation lines

shall be inspected prior to the backfilling of the trenches, etc.

- 5.7 Import Topsoil Approval and Installation:** In the event that the installation of import topsoil is required in the Project Landscape Improvement Plans, the Contractor shall obtain the approval of the proposed import topsoils from the City Landscape Inspector prior to delivery of the import topsoils to the Project site.

The Contractor shall provide the services of a qualified soil analysis laboratory ("soil lab") to take samples of the import topsoils proposed for the Project site, and to prepare a soil analysis report in order to demonstrate that the proposed import topsoils are in compliance with the Project Landscape Improvement Plans. The soil lab shall not, however, provide recommendations for soil preparation and amendments until the proposed import topsoils are determined to be in compliance and have been approved for use at the Project site by the City Project Manager. The Contractor shall provide the soil lab with a copy of the Project Landscape Improvement Plans that contains the specifications for approved import topsoil, for reference purposes.

The soil lab shall be the Soil and Plant Laboratory, Inc. located in Santa Clara, CA, or an approved equal. The soil analysis report shall be an A05, provided by the Soil and Plant Laboratory, Inc., or an approved equal. The A05 soil analysis report shall include soil sample testing data, the analysis of that data, and a determination that the proposed import soil is compliant with the Project Landscape Improvement Plans.

The import topsoil shall match the physical properties of the existing native soils as closely as possible, but fall within the specifications for import topsoil contained in the Project Landscape Improvement Plans. The soil lab shall obtain soil samples from the supplier, identified by the Contractor as the source of the import topsoils, for the soil analysis report. The soil lab shall take separate soil samples in the field for each different import topsoil proposed for the Project, so that an accurate representation of the topsoil is provided by the Project soil analysis report. The soil analysis report shall include the Project name and location, the City Project file number, and the Contractor's contact information for reference purposes. The soil lab shall include in the soil analysis report the name and location of the topsoil supplier, where the soil samples were taken.

Once the soil lab has completed the field sampling, soil testing, and the soil analysis report for the proposed import topsoils for the Project site, the soil

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lab shall submit copies of the soil analysis report with samples of the import topsoil directly to the City Landscape Inspector and the Contractor, for review and approval of the City Project Manager. The City Project Manager shall provide a copy to DOT and coordinate their comments in their review.

If the soil lab determines that the proposed import topsoils are not in strict compliance with the specifications for approved import topsoils contained in the Project Landscape Improvement Plans, the City Project Manager will reject it. The City Landscape Inspector shall notify the Contractor to locate another source or supply of import topsoil and continue the sampling and testing process until suitable import topsoil is located for the Project and approved by the City Project Manager.

If the proposed import topsoils are determined by the soil lab to be in compliance with the Project Landscape Improvement Plans, then the City Project Manager shall approve the import topsoil for use at the Project site. The Contractor shall then notify the soil lab to provide the recommendations for soil preparation and amendments directly to the City Project Manager. The City Project Manager will then notify the Project Landscape Architect to incorporate the recommendations from the soil analysis report for the soil preparation and amendments into the Project Landscape Improvement Plans as a plan revision. Once these plan revisions are completed, the Contractor can deliver the approved import topsoil to the Project site.

The Contractor shall be responsible for the removal of the existing native topsoils and installation of the import topsoil as shown on the Project Landscape Improvement Plans. Prior to installation of any import topsoil, the Contractor shall prepare the subgrade as described in the approved soil analysis report.

Topsoils that have been stockpiled at the construction site, that were not identified and approved for use as topsoil on the Project Landscape Improvements Plans, are classified as import topsoils. The same approval procedures for import topsoil described above must be followed by the Contractor prior to the installation of these stockpiled topsoils in the planting areas at the Project site. The Contractor shall be required by the City Landscape Inspector to remove any construction debris detected in the stockpiled topsoils, prior to installation in the Project planting areas.

- 5.8 Topsoil Preparation and Amendments:** The Contractor shall provide the soil preparation amendments for the approved topsoil in all the planting areas as required by the Project Landscape Improvement Plans, including

any plan revisions as a result of the approved soil analysis report for import topsoils.

In order to verify that the topsoils at the Project site have been correctly amended, prior to planting the Contractor shall again provide the services of a soil lab to sample, test, and analyze the amended topsoil to verify that the amendments have been installed per the Project Landscape Improvement Plans; refer to Part 5.7.

- 5.9 Pesticide Pollution Prevention:** Preventing landscape pest problems at the Project site are the responsibility of the Contractor. All pesticide applications at the Project site shall be in compliance with the California Department of Pesticide Regulations laws and the City of San José's current Integrated Pest Management Policy. Herbicides are classified as pesticides.

The Contractor shall provide the services of a certified pest control applicator, with Qualified Applicator Certificate ("QAC") from the State of California's Department of Pesticide Regulation, to provide any pest control applications required at the Project. All pesticide applications by the pest control applicator require a written pesticide recommendation for a State licensed Pest Control Advisor ("PCA"), and shall be done with the maximum care to avoid any hazard to persons, pets, or property. The pest control method used at the Project site must be the least toxic pesticide available to do the job.

The Contractor shall reduce the usage, or preferably eliminate, the use of pesticides that cause pollution to surface waters. At no time shall the Contractor use Diazinon, chlorpyrifos, chlopyralid, or any other pesticides that are restricted by the State on any City property or street right of way. The application of any non-restricted pesticide, especially organophosphate or copper-based pesticides, is also discouraged.

The Contractor shall provide summary monthly reports of any pesticide usage at the Project site to the City Landscape Inspector and the County of Santa Clara. The City Landscape Inspector shall provide copies of all Project monthly reports to the City's Environmental Service Department. Refer to Appendix K for the City of San Jose's Monthly Summary Pesticide Use Report.

- 5.10 Plan Revisions and Record Plans:** Revisions to the design of the Project Landscape Improvements shall not be made in the field without approved plan revisions. The Developer and/or the Contractor shall submit request for

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any plan clarifications directly to the City Landscape Inspector. The Project Landscape Architect is responsible for providing any required plan clarifications, plan revisions and record plans to the City Project Manager in a timely fashion.

- 5.11 Payment for Irrigation Water Supply Meters:** After the Project has been completed and accepted by the City, the City Project Manager shall notify DOT of the account number of the new water supply services for the landscape irrigation system located at the Project site. DOT is responsible for updating the mailing address on the water payment invoices with the water utility company to the following:

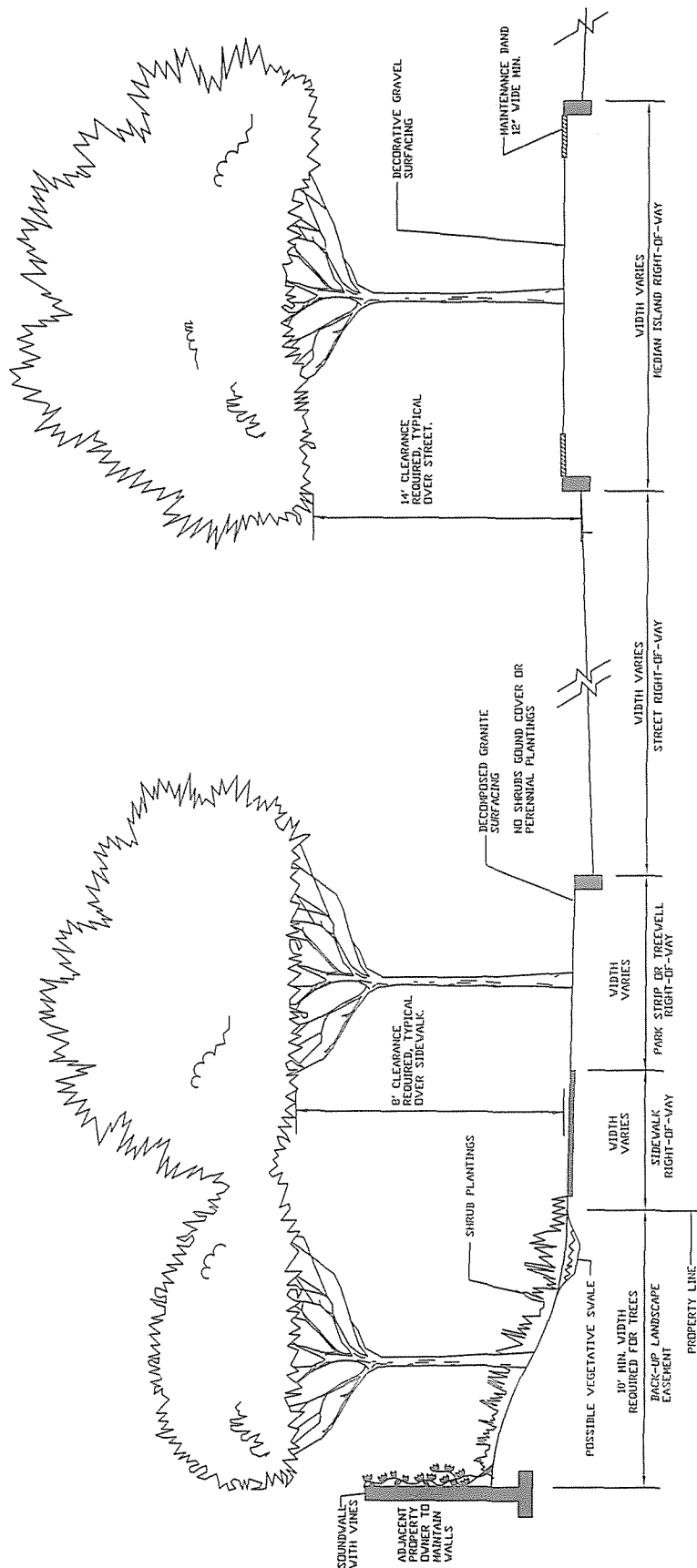
**City of San Jose
Department of Transportation
200 E Santa Clara St.
San Jose, CA 95113-1905**

– END OF PART 5 –

GUIDELINES FOR THE PLANNING, DESIGN AND INSPECTION
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APPENDIX

- Appendix A - Standard Features of Type 1 City Streetscape Projects, and
Standard Features of Type 2 City Streetscape Projects
- Appendix B - Street Tree Clearances from Ex. Utilities, Fire Hydrants & Streetlights
- Appendix C - Street Tree Clearances at Street Corners and Driveways
- Appendix D - Street Tree and Decorative Pavement Layout in Median Islands
- Appendix E - Sight Visibility Clearance at Non-Signalized Intersections
- Appendix F - General Plant Lists for City Streetscape Project
- Appendix G - List of Standard Irrigation Equipment for City Streetscape Projects
- Appendix H - Irrigation Pressure Loss Calculations Form
- Appendix I - Sample Site Plan Map For Recycled Water Review
- Appendix J – Field Inspection Checklist for City Streetscape Projects
- Appendix K - CSJ Monthly Summary Pesticide Use Report Form
- Appendix L – City Council Approval Memo for the Median Island Landscape Program



CROSS SECTION
NOT TO SCALE
FOR DESIGN DEVELOPMENT ONLY,
NOT FOR CONSTRUCTION.

JUNE 2007

APPENDIX A - STANDARD FEATURES OF TYPE I CITY STREETSCAPE PROJECTS:

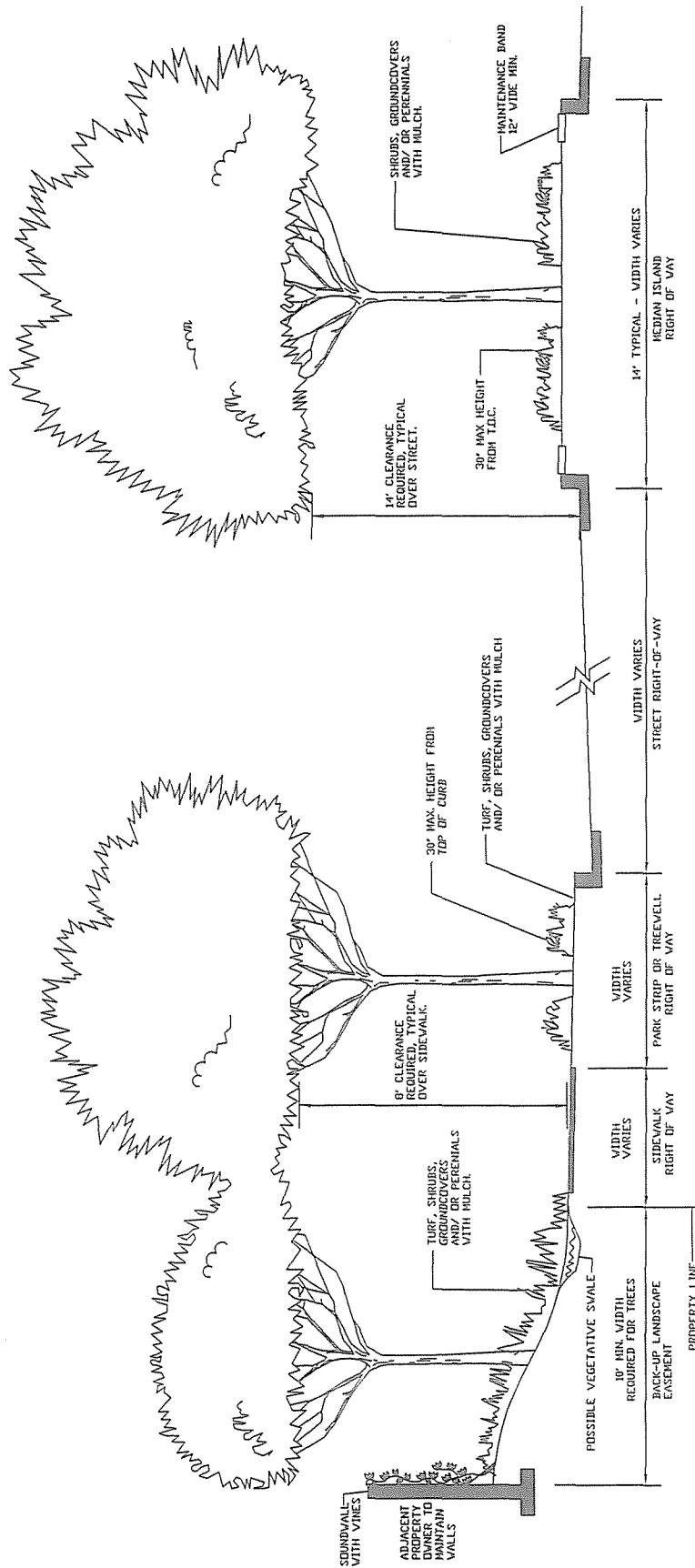
GUIDELINES FOR THE PLANNING,
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DEPARTMENT OF PUBLIC WORKS
SAN JOSE CALIFORNIA



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JUNE 2007

APPENDIX A - STANDARD FEATURES OF TYPE 2 CITY STREETSCAPE PROJECTS:

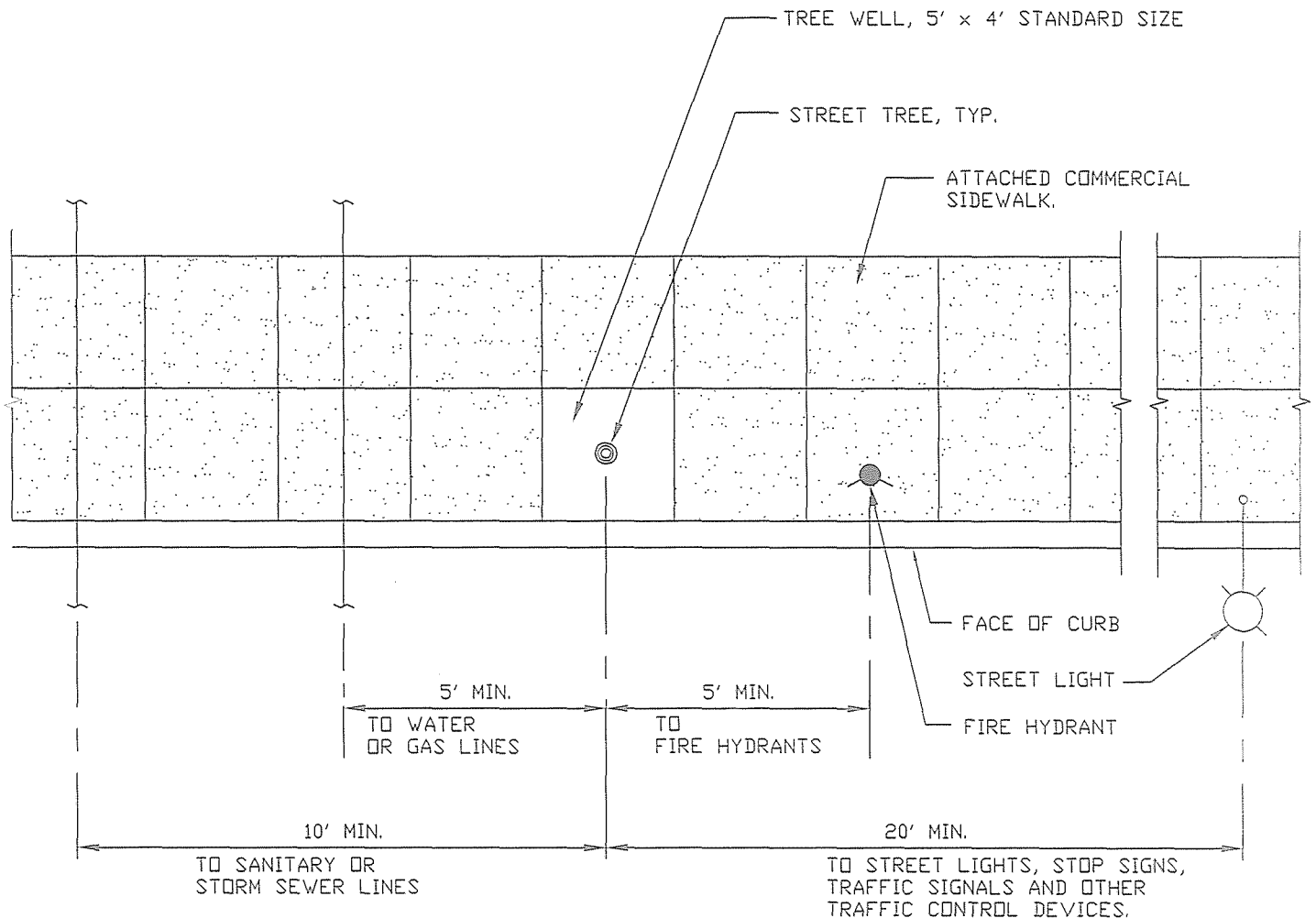
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SAN JOSE CALIFORNIA



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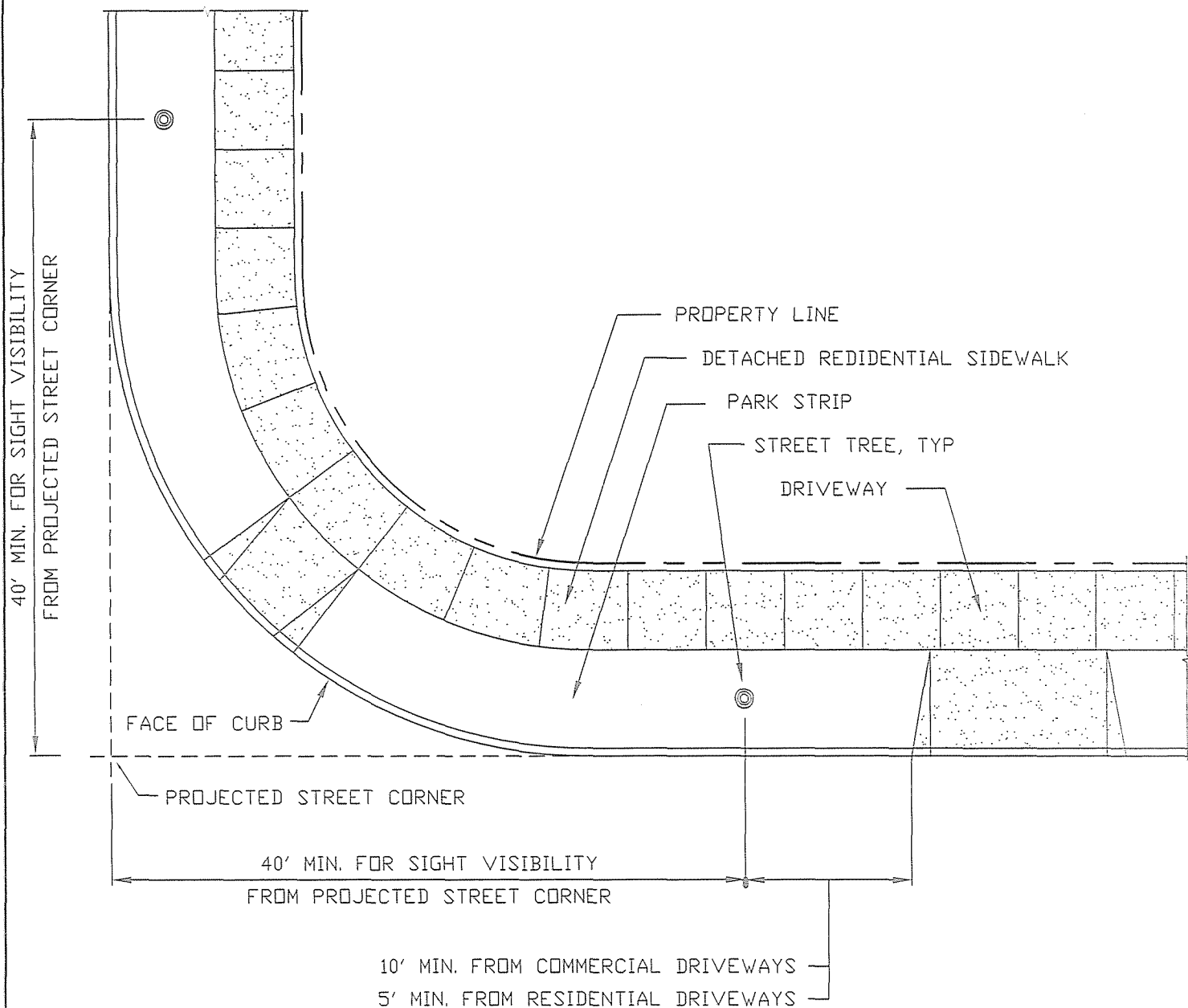


PLAN VIEW
 NOT TO SCALE
 FOR DESIGN DEVELOPMENT ONLY
 NOT FOR CONSTRUCTION.

- NOTE: (1.) THESE CLEARANCES ALSO APPLY TO STREET TREES IN DETACHED SIDEWALKS.
 (2.) CLEARANCES SHOWN FROM UTILITY LINES ALSO APPLY TO STREET TREES IN MEDIAN ISLANDS & BACK-UPS.
 (3.) REFER TO PART 4.16.4 OF THE GUIDELINES FOR OTHER REQUIRED CLEARANCES.

JUNE 2007

APPENDIX B - STREET TREE PLANTING CLEARANCES FROM EXISTING UTILITIES, FIRE HYDRANTS & STREETLIGHTS.



PLAN VIEW

NOT TO SCALE
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NOT FOR CONSTRUCTION.

NOTE: (1.) THESE SETBACKS ALSO APPLY TO STREET TREES IN ATTACHED SIDEWALKS.
(2.) REFER TO PART 4.16.4 OF THE GUIDELINES FOR OTHER REQUIRED CLEARANCES.

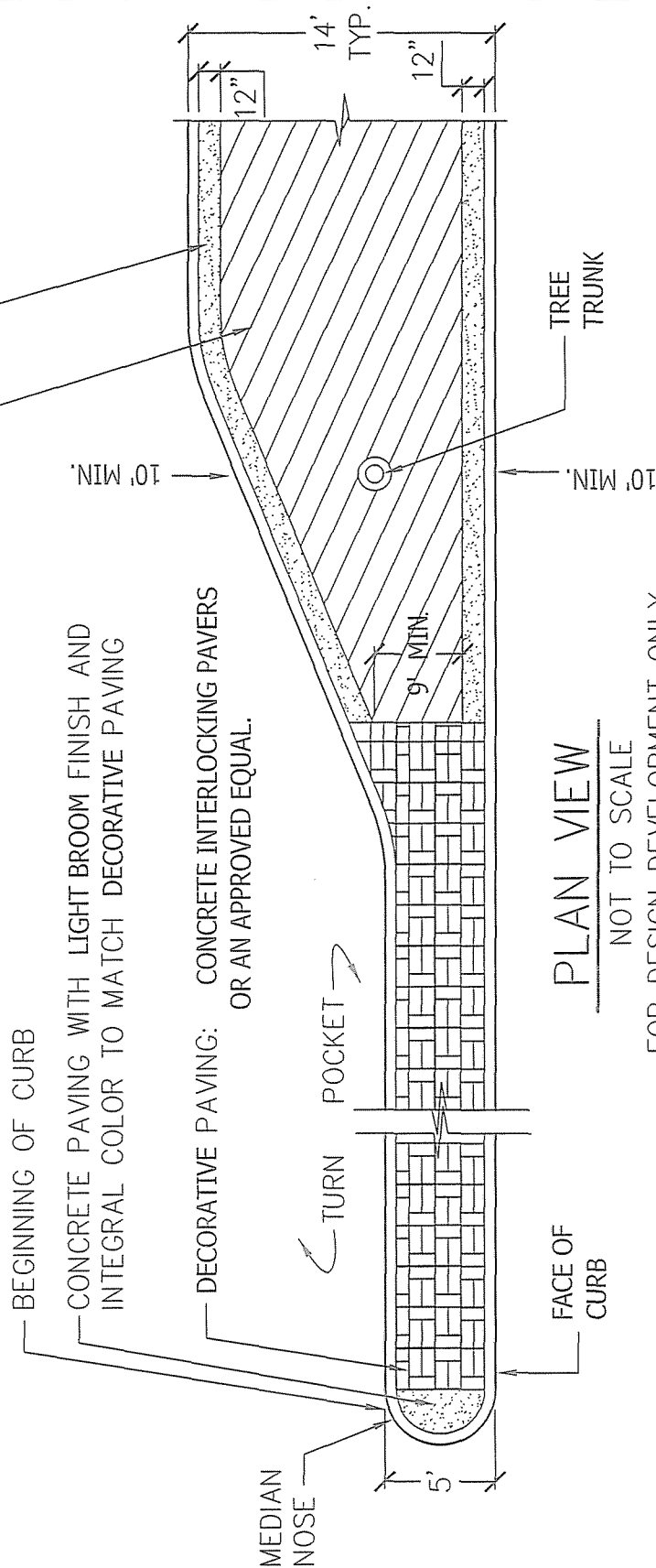
JUNE 2007

APPENDIX C - STREET TREE CLEARANCES FROM STREET CORNERS AND DRIVEWAYS

JUNE 2007

12" MAINTENANCE BAND, OPTION OF CONCRETE WITH LIGHT BROOM FINISH AND INTEGRAL COLOR OR INTERLOCKING PAVERS TO MATCH DECORATIVE PAVING.

PLANTING AREA FOR TYPE 1 ENHANCED AND TYPE 2 MEDIANS ONLY, OR DECORATIVE GRAVEL IN TYPE 1 MEDIANS



PLAN VIEW

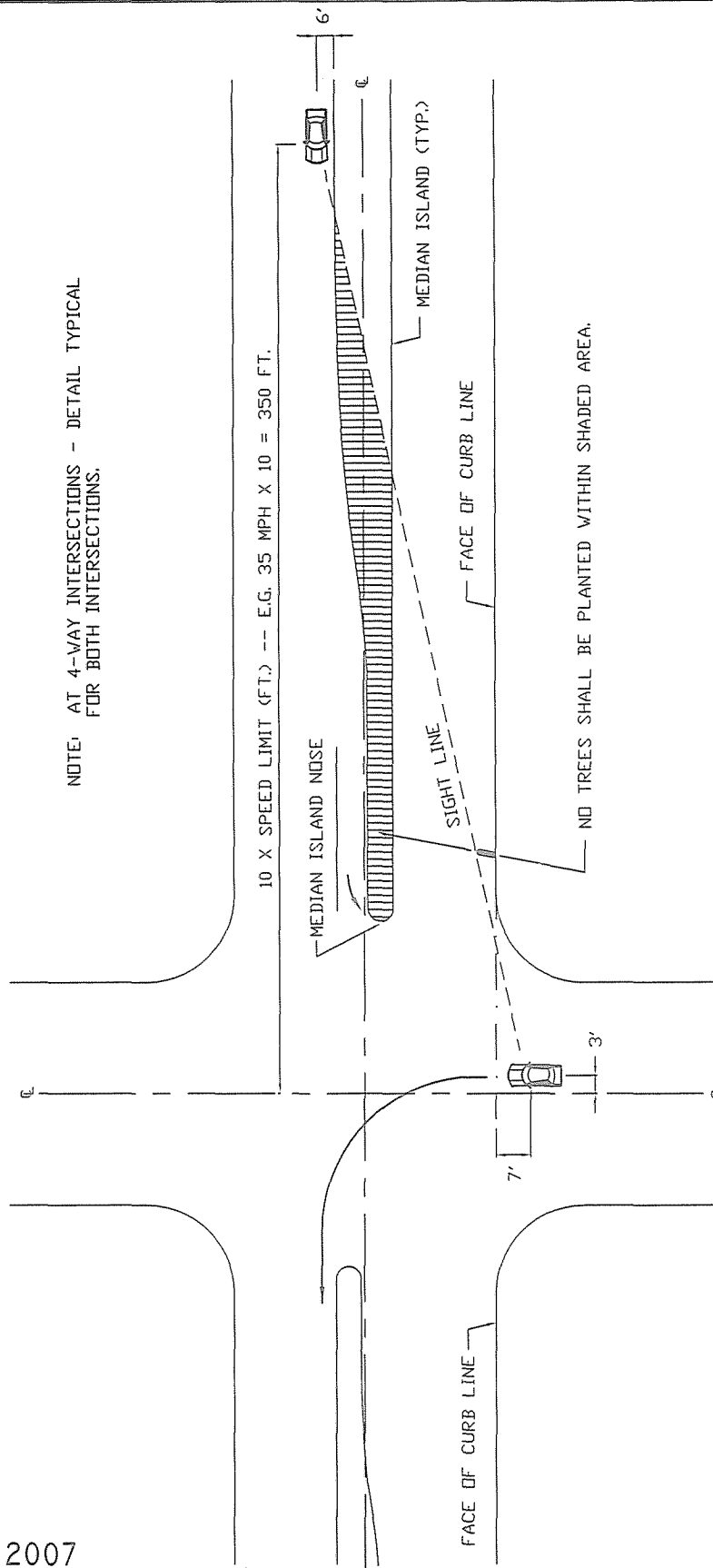
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NOTES:

- 1.) IF WIDTH OF MEDIAN NOSE EXCEEDS 5' FROM FACE OF CURB TO FACE OF CURB, LANDSCAPING IN PLACE OF SPECIAL PAVING CAN BE CONSIDERED WITH APPROVAL OF CITY.
- 2.) HEIGHT OF SHRUBS AND GROUNDCOVERS IN MEDIAN PLANTING AREAS SHALL NOT EXCEED 30" AT MATURITY.

APPENDIX D - STREET TREE AND PAVEMENT LAYOUT IN MEDIAN ISLANDS

JUNE 2007



PLAN VIEW

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FOR DESIGN DEVELOPMENT ONLY,
NOT FOR CONSTRUCTION.

NOTE: REFER TO PART 4.16.4 OF THE GUIDELINES FOR OTHER REQUIRED CLEARANCES.

APPENDIX E - SIGHT VISIBILITY CLEARANCE AT NON-SIGNALIZED INTERSECTIONS

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APPENDIX F

GENERAL PLANT LISTS FOR CITY STREETSCAPE PROJECTS

HOW TO USE THESE PLANT LISTS: These plant lists are general recommendations only. The Project Landscape Architect shall also reference the plant list found on the City's South Bay Water Recycling website for Projects designed with recycled water. City review and approval of the proposed plant materials is still required on a Project by Project basis.

**LIST A - GENERAL RECOMMENDATIONS FOR PLANT MATERIAL THAT
CAN BE USED IN TYPE 1 & TYPE 2 AREAS:**

BOTANICAL NAME

DECIDUOUS TREES

Acer buergerianum
Acer macrophyllum
Aesculus carnea
Carpinus betulus
Carpinus caroliniana
Celtis sinensis
Cercidiphyllum japonicum
Cercis canadensis
x Chitalpa tashkentensis
Crataegus phaenopyrum
Fraxinus americana 'Autumn Purple'
Gleditsia tricanthos inermis hybrids
Ginkgo biloba - approved varieties
Jacaranda mimosifolia
Koelreuteria bipinnata
Koelreuteria paniculata
Lagerstroemia indica - Indian Tribes hybrids
Malus - fireblight resistant varieties only
Pistacia chinensis
Platanus x acerifolia 'Columbia' or 'Yarwood'
Plantanus racemosa
Pyrus calleryana 'Chanticleer' or 'Aristocrat'
Quercus coccinea
Quercus lobata
Quercus macrocarpa

COMMON NAME

Trident Maple
Bigleaf Maple
Red Horsechestnut
European Hornbeam
American Hornbeam
Chinese Hackberry
Katsura Tree (not Zone 17)
Eastern Redbud
Chitalpa
Washington Thorne
White Ash
Honey Locust
Maidenhair Tree
Jacaranda
Chinese Flame Tree
Goldenrain Tree
Crape Myrtle
Crabapple
Chinese Pistache
London Plane Tree
California Sycamore
Ornamental Pear
Scarlet Oak
Valley Oak
Burr Oak

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BOTANICAL NAME

DECIDUOUS TREES (continued)

Quercus rubra
Sophora japonica
Tilia americana 'Redmond'
Tilia tomentosa
Ulmus americana "Frontier"
Ulmus americana "Valley Forge"
Zelkova serrata

COMMON NAME

Red Oak
Japanese Pagoda Tree
Basswood
Silver Linden
American Elm
American Elm
Zelkova

BOTANICAL NAME

EVERGREEN TREES

Agonis flexuosa Peppermint Tree
Arbutus 'Marina'
Brachychiton populneus
Calocedrus decurrens
Callistemon citrinus
Callistemon viminalis
Cedrus deodora
Cinnamomum camphora
Cotinus coggygia
Eucalyptus ficifolia
Eucalyptus nicholii

Geijera parvifolia
Ilex altaclarensis 'Wilsonii'
Laurus nobilis 'Saratoga'
Lophostemon confertus (Tristania conferta)
Magnolia grandiflora (smaller hybrids)
Maytenus boaria 'Green Showers'
Melaleuca quinquenervia
Metrosideros excelsa (Zones 16 & 17 only)
Olea europaea 'Swan Hill'
Pinus canariensis
Pinus eldarica
Pinus pinea
Pittosporum phillyraeoides
Podocarpus gracilior
Podocarpus macrophyllus
Prunus lusitanica
Prunus lyonii
Quercus agrifolia

COMMON NAME

Madrone
Bottle Tree
Incense Cedar
Lemon Bottlebrush
Weeping Bottlebrush
Deodor Cedar
Camphor Tree
Smoke Tree
Red-flowering Gum
Nichol's Willow-leaved
Peppermint
Australian Willow
Wilson Holly
Sweet Bay
Brisbane Box
Magnolia
Mayten Tree
Paperbark Tree
New Zealand Christmas Tree
Fruitless European Olive
Canary Island Pine
Eldarica Pine
Italian Stone Pine
Willow Pittosporum
African Fern Pine
Yew Pine
Portugal Laurel
Catalina Cherry
Coast Live Oak

GUIDELINES FOR THE PLANNING, DESIGN AND INSPECTION
OF CITY STREETSCAPE PROJECTS

BOTANICAL NAME

EVERGREEN TREES (continued)

Quercus ilex
Quercus suber
Quercus virginiana
Tristanopsis laurina (Tristania laurina)
Tipuana tipu

BOTANICAL NAME

SHRUBS

Abelia grandiflora - compact cultivars only
Buxus microphylla japonica
Cercis occidentalis
Chaenomeles cultivars
Cistus 'Sunset'
Dodonaea viscosa 'Purpurea'
Elaeagnus pungens
Galvezia speciosa
Garrya elliptica
Gaura lindheimeri 'Siskiyou Pink'
Grevillea spp.
Hemerocallis (evergreen variety)
Heteromeles arbutifolia
Juniperus - cultivars
Lantana hybrids
Lavatera maritime (L. bicolor) & L. thuringiaca
Leptospermum laevigatum
Leptospermum scoparium - varieties
Mahonia spp.
Myrica californica
Myrsine africana
Myrtus communis
Nandina domestica
Nerium oleander - cultivars
Osmanthus fragrans
Pennisetum setaceum 'Cupreum'
Phormium tenax – dwarf varieties
Pittosporum tobira
Pittosporum tobira 'Variegata'
Plumbago auriculata
Prunus caroliniana
Prunus ilicifolia ilicifolia

COMMON NAME

Holly Oak
Cork Oak
Southern Live Oak
Water Gum
Tipu Tree (not in Zone 17)

COMMON NAME

Abelia
Japanese Boxwood
Western Redbud
Flowering Quince
Sunset Rockrose
Purple Hopseed Bush
Thorny Elaeagnus
Island Bush Snapdragon
Coast Silktassel
Gaura
Grevillea
Daylily
Toyon
Juniper
Lantana
Tree Mallow
Australian Tea Tree
New Zealand Tea Tree
Mahonia
Pacific Wax Myrtle
African Box
Myrtle
Heavenly Bamboo
Oleander
Sweet Olive
Purple Fountain Grass
New Zealand Flax
Mock Orange
Variegated Mock Orange
Cape Plumbago
Carolina Laurel Cherry
Holly-Leaf Cherry

GUIDELINES FOR THE PLANNING, DESIGN AND INSPECTION
OF CITY STREETSCAPE PROJECTS

BOTANICAL NAME

SHRUBS (continued)

Prunus ilicifolia lyonii
Rhaphiolepis indica 'Ballerina' or 'Dancer'
Rhamnus californica 'Eve Case'
Rhus integrifolia
Romneya coulteri
Rosmarinus officinalis
Rhus ovata
Viburnum tinus
Westringia 'Wynyabbie Gem'
Xylosma congestum

COMMON NAME

Catalina Cherry
India Hawthorne
Coffeeberry
Lemonade Berry
Matilija Poppy
Rosemary
Sugarbush
Laurustinus
Coast Rosemary
Shiny Xylosma

VINES FOR SOUNDWALLS

Ficus pumila (trellis not required)
Parthenocissus tricuspidata (trellis not required)

Creeping Fig
Boston Ivy

**LIST B - GENERAL RECOMMENDATIONS FOR PLANT MATERIAL THAT
CAN BE USED IN TYPE 2 AREAS ONLY:**

BOTANICAL NAME

SHRUBS, GROUND COVERS & PERENNIALS

Agapanthus africanus 'Queen Anne' or 'Peter Pan'
Arctostaphylos densiflora 'Howard McMinn'
Astericus maritimus
Campanula portcharshyana
Ceanothus griseus horizontalis
Delosperma cooperi
Dietes bicolor & *Dietes vegeta*
Drosanthemum floribundum
Eriogonum giganteum
Erigeron glaucus
Erigeron karvinskianus
Erysimum 'Bowles Mauve'
Escallonia - low growing forms
Felicia amelloides
Hedera helix 'Hahn's self-branching'
Heuchera sanguinea & *H. 'Santa Ana Cardinal'*
Iberis Sempervirens 'Snowflake'
Juniperus spp. - low growing forms
Lantana montevidensis
Lavandula spp.

COMMON NAME

Lily of the Nile
McMinn Manzanita
Gold Chip
Serbian Bellflower
Carmel Creeper
Hardy Iceplant
Fortnight Lily
Rosea Ice Plant
St. Catherine's Lace
Beach Aster
Santa Barbara Daisy
Wallflower
Escallonia
Blue Marguerite
Hahn's English Ivy
Coral Bells
Evergreen Candytuft
Juniper
Trailing Lantana
Lavender

GUIDELINES FOR THE PLANNING, DESIGN AND INSPECTION
OF CITY STREETSCAPE PROJECTS

BOTANICAL NAME

SHRUBS, GROUND COVERS & PERENNIALS

(continued)

Liriope muscari

Myoporum parvifolia

Myrtus communis 'Compacta'

Nerium oleander 'Petite Salmon'

Nandina domestica hybrids

Osteospermum fruticosum

Ribes viburnifolium

Rosa - 'carpet' or landscape varieties

Rosmarinus officinalis – prostrate varieties

Salvia spp.

Sollya heterophylla

Teucrium chamaedrys (T. x *lucidrys*)

Teucrium fruticans

Tulbaghia violacea Society Garlic

Trachelospermum jasminoides

COMMON NAME

Big Blue Lily Turf

Dwarf Myrtle

Dwarf Oleander

Heavenly Bamboo

Freeway Daisy

Evergreen Current

Landscape Rose

Rosemary

Sages

Australian Bluebell Creeper

Germander

Bush Germander

Star jasmine

APPENDIX G

LIST OF STANDARD IRRIGATION EQUIPMENT FOR CITY STREETSCAPE PROJECTS

Note:

- 1) Refer to DPW Standard Landscape Details & Specifications for City Streetscape Projects for detailed product information.
- 2) The Contractor can submit equals to any products listed below for review and approval, with the exception of those indicated as sole source.

TYPE 1 & 2 PROJECTS:		
ITEM NO.	DESCRIPTION	MANUFACTURER & MODEL NO.
1	Backflow Prevention Device (“BPD”) is to be a reduced pressure principle assembly with protection jacket. Enclosure for BPD shall be stainless steel with City standard padlocks	BPD: Wilkins, 975XL Series for sizes 2” and smaller and Model No. 375A Series for sizes 2-1/2” and larger Enclosure: BPD, Coastguard model Protection Jacket: BPD, Frost Guard Pad: BPD Enclosure to be bolted on to a poured –in place concrete pad
2	Booster pump (as required to provide adequate pressure to proposed irrigation system)	TO BE DETERMINED DURING PROJECT PRELIMINARY ENGINEERING
3	BPD Strainer: “Y” type strainer with a 20-mesh stainless steel screen	Wilkins, YBP Series for 2” sizes and smaller (includes closure plug). FSC Series for sizes 2-1/2” and larger - plug by others

GUIDELINES FOR THE PLANNING, DESIGN AND INSPECTION
OF CITY STREETSCAPE PROJECTS

TYPE 1 & 2 PROJECTS: (Continued)		
ITEM NO.	DESCRIPTION	MANUFACTURER & MODEL NO.
4	BPD Pressure reducing valve (as required)	Wilkins, Model 500 for sizes 1" to 3", and Model ZW109 for size 4"
5	Gate Valve, installed in a concrete valve box	Gate Valve: Nibco T-113-IRR-BHW for sizes ¾" to 2 1/2" and Nibco F619 Class 215 for larger sizes. Concrete Box: Christy F8 concrete curb box with F8D concrete cover or F8C cast iron cover in turf areas, marked "GV"
6	Quick coupling valve, installed in a concrete valve box: Shall be two (2) piece brass construction one inch (1") angle slot type with locking rubber cover, capable of withstanding working pressure of 150 psi without leakage	Quick Couple Valve: Rainbird, for systems with a future connection to recycled water use model no. 44LRC with a locking yellow rubber cover, and for with an immediate connection to recycled water use model no. 44NP with a locking purple rubber cover Concrete Box: Christy concrete F22 box with F8D concrete lid marked "QVC"
7	Master Control Valve and Remote Control Valve, installed in a concrete valve box	Master Valve: Griswold, Model No. 2160 Remote Control Valve: Griswold, Model No. 2000 Concrete Valve Box & Lid: Christy, B9 with lockable concrete lid N9-T or steel checker plate N9-61J in turf areas, marked "RCV"

GUIDELINES FOR THE PLANNING, DESIGN AND INSPECTION
OF CITY STREETSCAPE PROJECTS

TYPE 1 & 2 PROJECTS: (Continued)		
ITEM NO.	DESCRIPTION	MANUFACTURER & MODEL NO.
8	For tree, shrub and ground cover plantings on slopes areas use pressure compensating bubblers on a flex riser, .5 gpm, to minimize weed growth and run-off. Two bubblers for each tree, one bubbler per plant (shrub, ground cover or perennial), with a 3.5 feet on-center minimum or larger spacing. Install with adjustable check valve at each bubbler. Install PVC laterals & mainlines with pipe stabilizers	Bubbler: Toro Flood FB-50-PC , or Rainbird full-circle trickle pattern 1402 Check valve: KBI Flex Adapter: Salco, I.H. Series Pipe stabilizer: V.I.T
9	For mainline and laterals use purple PVC pipe.	For mainline: use purple pipe, Sch 40 for sizes 1" to 1.5" size, and Class 315 for sizes 2" and larger For laterals: use purple pipe Sch 40

GUIDELINES FOR THE PLANNING, DESIGN AND INSPECTION
OF CITY STREETScape PROJECTS

TYPE 1 PROJECTS ONLY:		
ITEM NO.	DESCRIPTION	MANUFACTURER & MODEL NO.
10	Prefabricated irrigation controller assembly – sole source, no exceptions. Controller assembly to be bolted on to a poured –in place concrete pad.	<p>Enclosure: Stainless steel, top entry VIT Strongbox</p> <p>Controller: Rainmaster Eagle - sole source (no substitutions). Controller includes a wireless internet card and flat-style antenna and 5 years of pre-paid wireless data plan with automatic daily ET downloads. U.L. listed Controller Assembly: Model # CA6-RM3-xx/ICARD-F/FSF-xxx/RM-ISVC-5Y, with 5 year warranty provided by John Deere Landscapes Green Tech Division, or an approved equal.</p> <p>Flow sensor: Data Industrial Brass Flow Sensor Model FSF</p> <p>Flow sensor cable: Rainmaster Model # EV-CAB-SEN installed in a conduit.</p>
11	For tree plantings in all areas, use a pressure compensating bubbler, .5 gpm. Install bubbler inside a deep water pipe, one per tree, with an adjustable check valve at each bubbler. Deep water pipe to be PVC sch 40, and 18 “ deep.	<p>Bubbler: Toro Flood FB-50-PC, or Rainbird full-circle trickle pattern 1402</p> <p>Check valve: KBI</p>
12	For shrub and groundcover plantings in all areas, use 6" high pop-up one pressure compensating flood bubble. Install one bubbler per plant, with a 3.5 feet on-center minimum spacing.	Toro 570Z-PRX-6P-COM with a Flood FB-50-PC nozzle

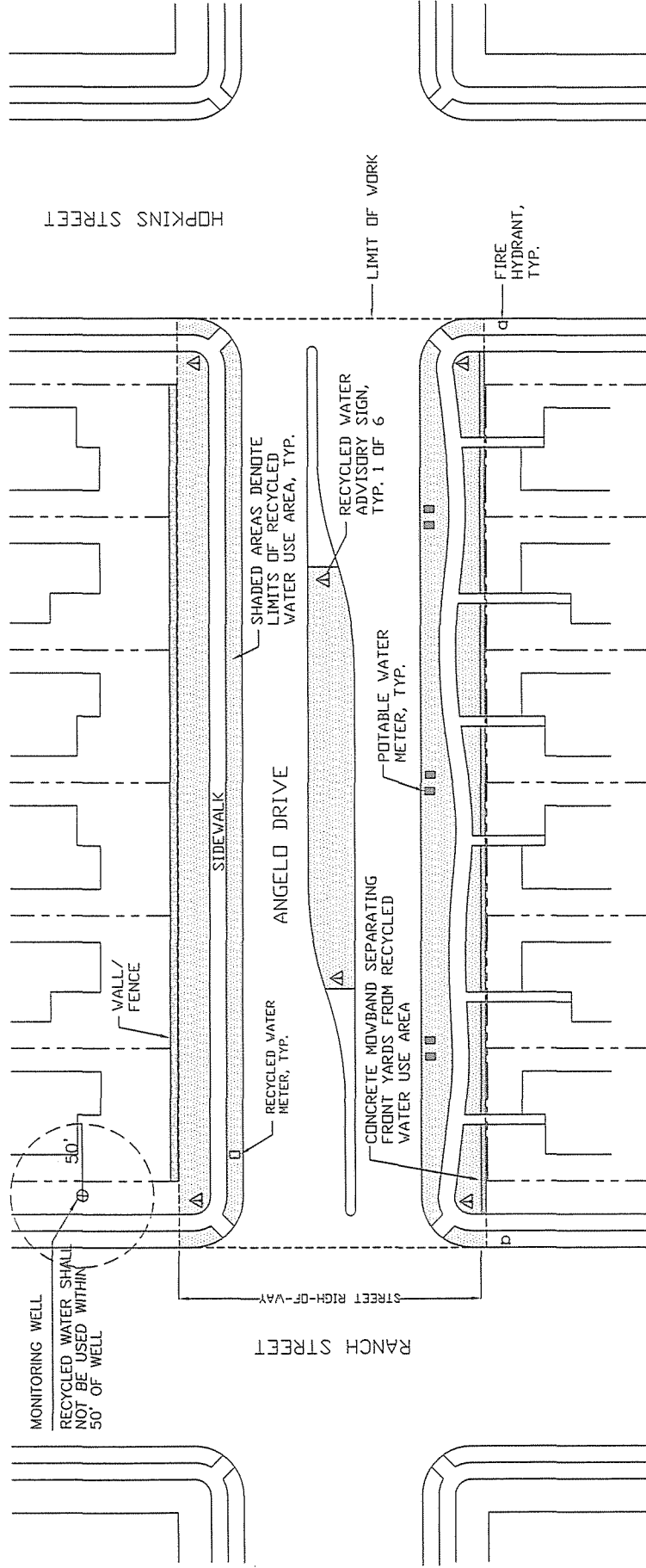
GUIDELINES FOR THE PLANNING, DESIGN AND INSPECTION
OF CITY STREETScape PROJECTS

TYPE 2 PROJECTS ONLY:		
ITEM NO.	DESCRIPTION	MANUFACTURER & MODEL NO.
13	Prefabricated irrigation controller assembly - sole source (no substitutions). Controller assembly to be bolted on to a poured -in place concrete pad	Enclosure: U.L listed Calsense Model # SSE Controller: Calsense Model # ET2000e Flow sensor: Calsense model # FM
14	For tree plantings in all areas use 6" high pop-up pressure compensating stream bubblers. Minimum two bubblers per tree.	Toro, 570Z-PRX-6P-COM, with a SB-360-PC2 nozzle. Use 6" high pop-ups.
15	For shrub and groundcover plantings in Median Islands, Tree Wells and Parkstrip areas, use 6" high pop-up pressure compensating flood bubblers. Install two bubblers at each tree, and one bubbler per plant (shrub, ground cover or perennial), with a 3.5 feet on-center minimum or larger spacing.	Toro, 570Z-PRX-6P-COM with a Flood FB-50-PC nozzle. Use 6" high pop-ups.
16	For planting areas up to 15' wide with turf, shrub and ground cover plantings in Back-ups, use pop-up pressure compensating sprinklers.	Toro, 570Z-PRX -XX-COM Series with MPR Plus Spray Nozzles or Rainbird Model 180X-SAM-PRS-XX. Use 6" pop-ups for turf areas, and 12" pop-ups for shrub/ground cover planting areas
17	For planting areas 15' - 33' wide with turf, shrub and ground cover plantings in Back-ups, use pop-up pressure compensating stream rotors.	Toro, 340 Series with fixed-radius nozzles. Use 6" pop-ups for turf areas, and 12" pop-ups for shrub/ground cover planting areas.
18	For large turf areas in Back-ups: use pop-up pressure compensating rotors, with stainless steel risers.	Hunter I-40/41 Group

GUIDELINES FOR THE PLANNING, DESIGN AND INSPECTION
OF CITY STREETSCAPE PROJECTS

APPENDIX H - IRRIGATION PRESSURE LOSS CALCULATIONS FORM

CONTROLLER NO.:		VALVE NO.:		TOTAL SYSTEM GPM:	
PRESSURE LOSS IN LATERAL LINES					
ITEMS	GPM	SIZE	LENGTH	PRESSURE LOSS	
a.				PSI	
b.				PSI	
c.				PSI	
d.				PSI	
e.				PSI	
f.				PSI	
IRRIGATION SYSTEM PRESSURE LOSS CALCULATIONS FOR WORST CASE REMOTE CONTROL VALVE					
1	TOTAL PRESSURE LOSS IN LATERAL LINES: (total of lateral pipe loss above)				PSI
2	PRESSURE LOSS IN MAINLINE LINE:				PSI
3	TOTAL PRESSURE LOSS IN FITTINGS (10% of Items 1 & 2):				PSI
4	PRESSURE LOSS IN REMOTE CONTROL VALVE:				PSI
5	PRESSURE LOSS IN GATE VALVE:				PSI
6	PRESSURE LOSS IN BACKFLOW PREVENTER ASSEMBLY:				PSI
7	PRESSURE LOSS IN STRAINER:				PSI
8	PRESSURE LOSS IN PRESSURE REDUCTER:				PSI
9	PRESSURE LOSS IN WATER METER:				PSI
10	SUBTOTAL PRESSURE LOSS (Total of Items 1-9)				PSI
11	GAIN OR LOSS IN PRESSURE FROM ELEVATION CHANGE (equals no. of feet of elevational change X .43 psi)				PSI
12	TOTAL PRESSURE LOSS IN SYSTEM (Item 10 with Item 11 Elevation Change calculated in)				PSI
13	MIN. PSI REQUIRED TO OPERATE SPRINKLER HEAD LOCATED THE FARTHEST FROM THE REMOTE CONTROL VALVE:				PSI
14	TOTAL MINIMUM PSI REQUIRED TO OPERATE SYSTEM (Item 12 plus 13) Note: This number must exceed Item 15 by a minimum of 5 PSI.				PSI
15	AVAILABLE WATER PRESSURE FROM STREET WATER MAIN (This number to be obtained by the Project Landscape Architect from the water utility co., use bottom of pressure range)				PSI
16	RESIDUAL PSI IN PROPOSED IRRIGATION SYSTEM (Subtract Item 14 from Item 15) Note: A minimum of 5 psi residual pressure is required, for proposed irrigation system.				PSI



LOCATION MAP

Scale: 1" = 60'



FOR SAMPLE SITE PLAN, SHOW ALL POTABLE WATER APPURTENANCES WITHIN THE RECYCLED WATER USE AREA OR WITHIN 10 FT. OF THE RECYCLED USE AREA, INCLUDING METERS, BACKFLOW PREVENTERS, DETECTOR CHECKS, HYDRANTS, AIR RELIEF VALVES, BLOW-OFFS, AND SAMPLING STATIONS.

CITY OF SAN JOSE
COYOTE CREEK TRACT 9714
Angelo Drive Streetscape
SBWR FILE NO. _____

APPENDIX I SAMPLE SITE PLAN MAP FOR RECYCLED WATER REVIEW

Guidelines for the Planning,
Design and Inspection of
City Streetscape Projects

JUNE 2007

GUIDELINES FOR THE PLANNING, DESIGN AND INSPECTION
OF CITY STREETScape PROJECTS

**APPENDIX J - FIELD INSPECTION CHECKLIST
FOR CITY STREETScape PROJECTS**

**FIELD INSPECTION CHECKLIST
FOR CITY STREETSCAPE PROJECTS**

Project Name: _____

Project File No: _____

Private Development Project or City Funded CIP: _____

Type of Project (Type 1, Type 1 Enhanced or Type 2): _____

Project Location & Cross Streets: _____

Name of City Landscape Inspector: _____ Phone No. _____

Name of Principal Tract Inspector: _____ Phone No. _____

Name of City Electrical Inspector: _____ Phone No. _____

Name of City Project Manager: _____ Phone No. _____

Contact Name for General Contractor/Developer: _____ Phone No. _____

Contact Name for Landscape Contractor: _____ Phone No. _____

NOTE: Inspector to mark checklist items not included in construction contract as "Not Applicable" ("NA").

PART 1: PROJECT START-UP

- | | |
|--|--|
| <input type="checkbox"/> Attend pre-construction meeting, & invite DOT, PG&E and SBWR if system is designed for recycled water. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Check that Contractor has copies of approved construction documents. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Project progress schedule received and approved. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Traffic Control Plan received and approved. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Contractor has obtained a copy of C3 Handbook. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Survey calculations received and approved. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> All other Project submittals received and approved and mat'ls. delivered on-site prior to installation conform to submittals. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Check site for ex. survey monuments that require preservation. | Date: _____ Inspector's Initials _____ |

PART 2: STORMWATER POLLUTION PREVENTION

- | | |
|--|--|
| <input type="checkbox"/> Monthly Pesticide Reports were submitted, as required. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Construction BMPs are in place during construction. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Permanent post-construction BMPs are in place and functional at the end of construction, and not clogged with debris. | Date: _____ Inspector's Initials _____ |

PART 3: GRADING AND DRAINAGE

- | | |
|---|--|
| <input type="checkbox"/> Check that grades & drainline layout , with room left for import topsoils and mulch as required. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Check that drain inlets have been set to grades shown on plans. | Date: _____ Inspector's Initials _____ |

PART 4: PAVING AND CONSTRUCTION

- | | |
|---|--|
| <input type="checkbox"/> Check subgrade grade & compaction. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Check depth and compaction of aggregate. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Check layout of forms & pavement joints. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Check that paving materials being delivered comply with approved submittals. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Check that areas to receive AC paving have been oiled prior to paving as needed. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Materials Lab has tested compaction of AC paving. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Check paving layout & finishing work. | Date: _____ Inspector's Initials _____ |

PART 5: TOPSOIL

- | | |
|--|--|
| <input type="checkbox"/> Soil analysis report submittal for import topsoil(s) has been approved by City, prior to installation. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Check that soil amendments have been delivered to site obtain copies of delivery tags from Contractor. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Check that subgrade ripped prior to installation of import topsoil. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Check that topsoil analysis report submittal, after installation amendments, has been approved by City. | Date: _____ Inspector's Initials _____ |

PART 6: ELECTRICAL (Irrigation Controller(s) Only)

- | | |
|--|--|
| <input type="checkbox"/> Field verify location of electrical service with PG&E. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Check forms, anchor bolts, conduits, ground rod, conductors etc. in service cabinet & controller enclosure foundations. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Check that wiring is ready for electrical inspection. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Check that telephone line installed to controller (Calsense only). | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Coordinate electrical inspection. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Issue electrical punch list to Contractor. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Check that electrical work was released by Electrical Inspector. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Check that Electrical Section has issued PG&E connect order. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Coordination with PG&E to complete meter installation. | Date: _____ Inspector's Initials _____ |

PART 7 - IRRIGATION (Potable or Recvled Water Svstems):

- | | |
|---|--|
| <input type="checkbox"/> Verify location of water meters with Water Co. | Date: _____ Inspector's Initials _____ |
|---|--|

Name Field Inspection Checklist for City Streetscape Projects

Name of Project:

Date:

Page 3 of 4

- | | |
|---|--|
| <input type="checkbox"/> Backflow prevention installed at all potable points of connection, and certified by an AWWA backflow specialist. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Trenching: pipe locations, pipe separation, depth and sand bed prior to back fill. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Pipe separation from potable water lines. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Tracer wires installed on all mainlines. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Attend and approve mainline pressure test. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Attend and approve coverage test (see below for recycled water). | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Control valves: station tags and curb markers installed, valve box lids properly marked and bolted down. | Date: _____ Inspector's Initials _____ |

PART 8: IRRIGATION SYSTEMS WITH IMMEDIATE CONNECTION TO RECYCLED WATER

- | | |
|---|--|
| <input type="checkbox"/> Irrigation Plans approved by DHS prior to meter installation. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Purple pipe main and lateral lines installed throughout. New underground piping (labeling, clearances, burial depth, sleeving). | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Strainer/pressure regulator assembly installed per plan. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Controller advisory I.D. decal has been installed. Advisory sign and I.D. valve tags and signs have been installed. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Quick coupler valves have purple covers and advisory I.D. tags installed. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Required temporary connection to potable water service; in most cases, the site's irrigation system must be connected to a temporary source of potable water in order to conduct required cross-connection test. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> New recycled water meter installation – prior to receiving recycled water, SBWR Inspector must inspect the disconnection of the site's irrigation system from the temporary potable water supply, and then inspect the connection of the system to the recycled water meter. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Site passed required cross-connection test performed by a certified AWWA cross-connection specialist, invite SBWR. | Date: _____ Inspector's Initials _____ |

PART 9: IRRIGATION SYSTEMS WITH FUTURE CONNECTION TO RECYCLED WATER

- | | |
|--|--|
| <input type="checkbox"/> Purple pipe main and lateral lines installed throughout. New underground piping (labeling, clearances, burial depth, sleeving). | Date: _____ Inspector's Initials _____ |
|--|--|

PART 10 - PLANTING:

- | | |
|---|--|
| <input type="checkbox"/> Gravel, mulch and plant material submittals have been approved by City, prior to installation. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Check that finish grading & 85% compaction completed in all planting areas, prior to installation of plant materials and/or sod. | Date: _____ Inspector's Initials _____ |

Name Field Inspection Checklist for City Streetscape Projects

Name of Project:

Date:

Page 4 of 4

- | | |
|--|--|
| <input type="checkbox"/> Moisture and root barriers installed per plans. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Check that the correct species of plant materials, of good quality, have been delivered to site prior to installation. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Check the status of the application of pre-emergent herbicide, prior to installation of mulch (State approved products only). | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Rootballs for all plant materials installed at correct grades. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Full depth & coverage of mulch & gravel. | Date: _____ Inspector's Initials _____ |

PART 11 - START OF MAINTENANCE:

- | | |
|--|--|
| <input type="checkbox"/> Complete construction punch list items and issue to Contractor. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Record plans received by City Project Engineer. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Check that a final clean up has been done at site, prior to pre-maintenance inspection. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Schedule pre-maintenance period inspection, invite DOT. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Project improvements are completed, and start of maintenance is approved with the following signatures: | |

DPW: _____ TITLE: _____ DATE: _____

SBWR: _____ TITLE: _____ DATE: _____

DOT: _____ TITLE: _____ DATE: _____

PART 12 - END OF MAINTENANCE PERIOD:

- | | |
|---|--|
| <input type="checkbox"/> Complete punch list item memo and issue to Contractor. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Provide irrigation controller remote to DOT maintenance staff. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Laminated irrigation plan(s) installed in controller(s). | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Attend final maintenance period inspection with DOT. | Date: _____ Inspector's Initials _____ |
| <input type="checkbox"/> Provide copies of current water meter(s) bills to DOT. | Date: _____ Inspector's Initials _____ |

DPW: _____ TITLE: _____ DATE: _____

DOT: _____ TITLE: _____ DATE: _____

NOTES:

1. The Project Landscape Inspector shall submit the original Landscape Inspection Field Guidelines form to the Principal Landscape Inspector, who shall then provide copies to the Principal Tract Inspector (Private Development Projects only) and the City Project Manager.
2. For City Funded Capital Improvement Projects only, the Project Manager shall coordinate the transfer of the maintenance responsibilities at the project site to DOT.
3. For Private Development Projects only, the Principal Tract Inspector shall coordinate the transfer of the maintenance responsibilities at the project site to DOT.

GUIDELINES FOR THE PLANNING, DESIGN AND INSPECTION
OF CITY STREETScape PROJECTS

APPENDIX K - CSJ MONTHLY SUMMARY PESTICIDE USE REPORT FORM

MONTHLY SUMMARY PESTICIDE USE REPORT



Operator Name	Address	City	Zip Code	Phone #	Report Prepared By	Date
Operator ID/Permit #	License #	County (where applied)	County #	Month/Year of use	Total # of Applications	
		Santa Clara	43			

- | | | | |
|---|--|--|--|
| 1. Complete Sections A, B, C,D,H and I for All Users | Code 10 - Landscape Maintenance Pest Control | includes any pest control work performed within or on buildings and other structures. | |
| 2. Complete Column E by Using One of the Following Codes | Code 20 - Landscape Maintenance Pest Control | includes any pest control work performed on landscape plantings around residences, or other buildings, golf courses, parks, cemeteries, etc. | |
| | Code 40 - Right-of-Way Pest Control | includes any pest control work performed along roadways, power lines, median strips, ditch banks and similar allies. | |
| | Code 50 - Public Health Pest Control | includes any pest control work performed by or under contract with State or local public health or vector agencies. | |
| | Code 80 - Vertebrate Pest Control | includes any vertebrate pest work performed by public agencies or work under the supervision of the State or county agricultural commissioner. | |
| | Code 91 - Commodity Fumigation (Nonfood/Nonfeed) | includes fumigation of nonfood/nonfeed commodities such as; pallets, damage, furniture, burlap bags, etc. | |
| 3. Complete Columns F and G, If Use Does not Fit one of the Above Codes | Code 91 - Regulatory Pest Control | includes any pest control work performed by public employees or contractors in the control of regulated pests. | |

[illegible]

GUIDELINES FOR THE PLANNING, DESIGN AND INSPECTION
OF CITY STREETSCAPE PROJECTS

APPENDIX L – CITY COUNCIL APPROVAL MEMO FOR THE
MEDIAN ISLAND LANDSCAPE PROGRAM

TRANSPORTATION AND DEVELOPMENT
COMMITTEE AGENDA: June 9, 1994

ITEM #6

CITY OF SAN JOSE - MEMORANDUM

TO: Transportation and
Development Committee

FROM: Ralph A. Qualls, Jr.
Director of Public Works

Wayne K. Tanda
Director of
Streets and Parks

SUBJECT: Median Island
Landscape Program

DATE: May 27, 1994

APPROVED: 

DATE: 6/7/94

COUNCIL DISTRICT: City-Wide

RECOMMENDATION

It is recommended that the Transportation and Development Committee approve the following plan of action for the City Council regarding the Median Island Landscape Program:

1. Approve a median island landscape program with two levels of median island development distinguished by the source of funding for maintenance -

Type 1: City-Maintained Standard will include trees and paved surfaces only; exemptions would permit shrubs and ground covers at Downtown sites.

Type 2: Assessment District-Maintained Standard will include trees, shrubs, ground cover, and/or paving materials.
2. Approve a four-step process for developing a master plan for implementing median island landscape projects over the next five fiscal years.
3. Approve a standard of landscape development for park strips and back-up strips consistent with the City's water conservation policy and dedicated resources to maintain and protect such sites.

BACKGROUND

On June 21, 1983, the City Council approved a policy which required that all new median islands and back-up strips along major thoroughfares be planted rather than paved. Based on a study and analysis by the Public Works Department and the then Neighborhood

Maintenance Department, the City Council selected, as a goal, that all median islands and back-up strips be planted with trees and shrubs that are supported by automatic irrigation systems.

The landscaping of median islands has been accomplished over the years by four different processes:

1. When major thoroughfares are funded and constructed through the Capital Improvements Program, median island landscaping is included in the project, as required by current adopted City policy;
2. When private developers are required to improve the street frontage adjacent to their project, median island landscaping is included where applicable, as required by current adopted City policy;
3. When traffic safety or operational improvements are funded and constructed through the Capital Improvement Program, median island landscaping is included where applicable; and
4. The construction of median island landscaping on existing major thoroughfares has been accomplished through the program known as the Median Island Landscaping (MIL) in the Capital Improvement Program.

The MIL program was in effect from fiscal year 1984-85 until fiscal year 1987-88. The program was temporarily suspended in fiscal year 1987-88 due to budgetary deficiencies.

In fiscal year 1990-91, restoration of the improvement program was considered and one-time funding was approved. The adopted 1990-91 Capital Improvement Program approved \$1,500,000 for median island landscaping. However, due to an ongoing drought, planning for such landscape improvements was put on hold.

In fiscal year 1993-94, master planning for median island landscaping is under way again. The proposed 1994-95 Capital Budget designates \$1,457,000 in funds for landscaping unspecified median islands. The proposed Capital Improvement Program for years 1995-99, designates \$350,000 for landscaping in each of the following four years, for a total proposed five-year budget of \$2,857,000.

Exhibit A is an inventory of existing landscaped median islands on major thoroughfares.

Maintenance of landscaped median islands was the responsibility of the former Streets and Traffic Department until fiscal year 1992-93. Late in fiscal year 1992-93, the parks maintenance component of the former Recreation, Parks, and Community Services Department was merged with street maintenance responsibilities under the newly titled Streets and Parks Department.

The Streets and Parks Department is responsible for the maintenance of landscaping in public parks and in street right-of-ways. Maintenance of median islands by the City is funded primarily from the general fund. The exception is median islands within an assessment district, which are maintained by the City with funding from the assessment district.

ANALYSIS

The purpose of this memorandum is to present a case for the establishment of a new standard of landscape development for median islands and back-up strips maintained with City general funds ("City-maintained"), given limited resource availability. Resources include water, maintenance materials and labor.

Currently, the Streets and Parks Department is maintaining 1,254 acres of park and public facilities lands, 1,430 acres of raw land, and 197 developed acres of street landscape. In the past three years, the parks and landscape staff has been significantly reduced as acreage to maintain has increased. For example, one year ago, there were 28 people to maintain 188 acres of street landscape and, presently, there are 14 people to maintain 197 acres of street landscape. From 1990 to 1994 the parks maintenance staff has decreased from 167 to 141 with the addition of 105 acres of new park land to maintain. The budget for water has been reduced, as well, while the demand has increased. Maintenance of existing landscaped properties is less than adequate with current resources. Additions to the landscaped properties will further strain the existing maintenance resources.

The City of San Jose periodically experiences drought conditions that have an impact on water availability for landscape maintenance. In 1976-77 a drought occurred which inspired a lower level of landscape development in the median islands and back-up strips during and shortly after the drought. Our most recent drought, which began in fiscal year 1985-86 and continued for six years, was severe enough to move the City Council to develop the Water Waste Prevention and Water Shortage Ordinance. That ordinance established standards of use to reduce water waste in the City of San Jose as a continuing practice.

The present standards of median island landscaping were established during a time of abundance. Recent reductions in funding resources and limitations on water resources have strained the City's ability to maintain intensely planted landscapes. The Departments of Public Works and Streets and Parks jointly recommend that the City Council approve a level of landscape improvement for city-maintained median islands in keeping with the resources available at this time. Should the City consider the allocation of additional resources in the future, staff would recommend that city-maintained median island landscapes meet the same standard proposed for landscapes funded by assessment districts.

Recommendation No. 1

It is recommended that city-maintained median island landscapes focus on the dominant planting feature of street landscapes - trees, and

rely less on the ground level plantings that are expensive to maintain. Trees are the strong character element of streetscapes. Highly regarded major thoroughfares are often characterized by the definition given by mature street-side and median trees and the shade provided by tree canopies.

Placing the planting emphasis on trees and eliminating the shrub and ground cover elements will greatly reduce the maintenance requirements. Trees acclimate effectively and, when chosen appropriately, require little water and a relatively low level of maintenance. Shrubs and ground covers, however, require a greater proportion of the overall water and maintenance labor and suffer more in the absence of those resources. Such landscapes, poorly maintained due to reduced staff attention, are evident by overgrown shrub masses, thin ground covers, unmanaged weed growth, and under watering, due to water cutbacks or damaged irrigation systems. Additionally, shrub and ground covers tend to "catch" trash from the roadway, which is labor intensive to collect. Shrubs and ground covers greatly increase the the cost of maintenance and yet offer little to improve the overall impact that trees give to the streetscape.

While working towards implementing lasting street landscapes, that will be developed appropriately for the level of maintenance to be provided, the Departments of Public Works and Streets and Parks recommend that the City Council approve a median island landscape program with two levels of development, one for sites maintained with City general funds and another for sites maintained with assessment district funds. The level of landscape development would be as follows:

TYPE 1: THE STANDARD FOR MEDIAN ISLAND LANDSCAPES MAINTAINED WITH CITY FUNDS will include the installation of trees as the only plant material and one or more paving materials as the ground surface treatment. The trees will be served by an automatic bubbler irrigation system. Paving materials could range from compacted decomposed granite at the low end to decorative concrete or pavers at the upper end. Under this standard, median islands could include built-up curb/planters or other special features. The quality of development will be dependent on the funds available for a given project. The savings from not installing the shrubs and ground covers, and the related irrigation system, could be applied to enhanced paving treatment.

Exhibit C illustrates the typical standard of landscape development proposed for Type 1. Examples of the range of improvements are provided in Exhibit E, which also indicates the corresponding estimated construction and maintenance costs.

Exceptions to the restriction on the installation of shrubs and ground covers will be permitted at Downtown sites under the responsibility of the Redevelopment Agency. In such projects, small shrubs may be allowed. In the Downtown locations the paving treatments will be held to a higher minimum standard, such as concrete or stone materials.

TYPE 2: THE STANDARD FOR MEDIAN ISLAND LANDSCAPES MAINTAINED WITH ASSESSMENT DISTRICT FUNDS will include the installation of trees and allow for the installation of shrubs, ground covers and turf materials, as well. The plantings will be served by automatic irrigation systems that will include bubbler systems for the trees and suitable water efficient systems for the other plantings. Type 2 landscapes will also permit the use of paving in combination with or in lieu of the ground level plantings.

Exhibit D illustrates the typical standard of landscape development proposed for Type 2. Examples of the range of improvements are provided in Exhibit F, which also indicates the corresponding estimated construction and maintenance costs.

Recommendation No. 2

The Departments of Public Works and Streets and Parks recommend that the City Council approve a four-step process for developing a master plan for implementing median island landscape projects over the next five years. The Department of Public Works will facilitate the process as follows:

Step 1: Prepare an inventory of existing landscaped median islands and a list of potential median islands to be landscaped.

Staff have completed these two tasks and the lists are attached as Exhibits A and B. Exhibit B, the list of potential median islands to be landscaped, is broken down into two categories - islands with existing curbs and islands with no curbs, but defined by traffic striping. The department will confirm the lists of potential sites with council representatives.

Step 2: Establish criteria for prioritizing the potential median islands to be landscaped.

Staff will prepare a recommended list of criteria for prioritizing future median island projects for City Council consideration in August, 1994.

Step 3: By council districts, develop prioritized lists of median island landscape projects by applying the criteria to the lists of potential median islands to be landscaped.

The department will work with council representatives to prioritize potential projects.

Step 4: Develop a 5-year city-wide plan for implementing median island landscape improvements, on the basis of the prioritized lists, with proposed funds.

Staff will recommend a plan for City Council consideration in September, 1994.

Recommendation No. 3

The Departments of Public Works and Streets and Parks recommend, also, that the City Council approve a standard of landscape development for all park strips and back-up strips, both city-maintained and assessment district-maintained, that is consistent with the City's policy of water conservation and that responds to maintenance concerns.

THE STANDARD FOR PARK STRIP LANDSCAPES that will be maintained with city funds will include street trees served by automatic bubbler irrigation systems. The surface treatment will be decomposed granite paving.

At sites maintained with assessment district funds, the park strips will be planted with street trees and other appropriate plantings, not to exceed 30 inches in height. The landscape may also include paving of decomposed granite. Automatic irrigation systems will serve the plantings, with bubblers at the trees and a suitable water efficient system for the other plants.

THE STANDARD FOR BACK-UP STRIP LANDSCAPES that will be maintained with city funds will include trees and low growth shrubs, with vines adjacent to walls and fences to minimize graffiti opportunities. The plantings will be served by an automatic bubbler irrigation system.

Back-up strips that will be maintained with assessment district funds will be landscaped with trees, low growth shrubs, ground covers, and/or mulch cover. Vines will be planted adjacent to walls and fences. The plantings will be served by an automatic bubbler system for trees and an appropriate irrigation system for the other plants.

Exhibits C and D illustrate the typical standard of landscape development proposed for park strips and back-up strips.

All plantings for median islands, park strips, and back-up strips, whether funded for maintenance by the City or an assessment district, will be selected for water-use efficiency. Overall water conservation is an objective, however, exceptions may be allowed for specific situations where a planting accent is desired.

All landscape plans will be subject to normal city review cycles to ensure adherence to the approved standards.

The Departments of Public Works and Streets and Parks encourage all of the recommendations made above as measures to improve the conditions for adequate development and maintenance of the City's landscaped roadways over the long term.

COORDINATION

This memorandum has been prepared in coordination with the Redevelopment Agency and the Departments of City Planning and Building and Environmental Services.



RALPH A. QUALLS, JR.
Director of Public Works


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WAYNE K. TANDA
Director of Streets and Parks

Exhibits

- A - Inventory of Existing Landscaped Median Islands
- B - List of Potential Median Islands to be Landscaped
- C - Recommended Type 1 Median Island Landscape Standard for City Maintained Facility
- D - Recommended Type 2 Median Island Landscape Standard for Assessment District Maintained Facility
- E - Examples of Type 1 Median Island Landscapes and Back-up Strips
- F - Examples of Type 2 Median Island Landscapes and Back-up Strips

RAQ:GDT:KJ
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GLOSSARY

GENERAL TERMS:

AMANDA: The City of San José archival database system for the DPW Private Development Projects improvement plans.

Back-ups: Landscaped areas in front of soundwalls, located within the street right of way or easement.

BMPs: Best management practices for stormwater treatment.

BPD: Backflow Prevention Device for irrigation systems.

CSJ: City of San José

Integrated Pest Management (IPM): Integrated Pest Management is a decision making process for managing pests that uses monitoring to determine the injury levels of the plant materials from the pests and combines biological, cultural, physical and chemical tools. IPM is intended to effectively minimize health risks to the public and impacts to the environment, while providing effective pest control. IPM emphasizes the use of extensive knowledge about the target pests, such as infestation thresholds, life cycles, environmental requirements and beneficial insects to compliment and facilitate biological and other natural pest control measures. IPM uses the least toxic pesticides, and only as a last resort, for controlling pests.

Landscape Improvement Plans: A complete set of Project construction documents, including plans, specifications or special provisions and details.

NPDES: National Pollutant Discharge Elimination System.

NPDES MS4 Permit: National Pollutant Discharge Elimination System MS4 Permit.

NOI: Notice of Intent filed with the State for SWPPP.

NOT: Notice of Termination filed with the State for SWPPP.

O&M Costs: Project Operating and Maintenance Costs.

PCA: Pest Control Applicator.

POC: The Contractor's point of connection to the water supply for the irrigation system.

Project: City Streetscape Project.

Soil lab: Soil and Plant Laboratory Inc., or an approved equal.

Soil Report: A05 soils report by Soil and Plant Lab, or an equal approved by the City Project Manager.

Specialty Improvements: Specialty Improvements require conceptual design plans, for review and approval during the Planning Permit stage of the Projects; refer to Part 4.1.

Standard Landscape Details and Specifications: DPW Standard Landscape Details and Specifications for City Streetscape Projects

SCP: Stormwater Control Plan (Post-construction BMPs).

SWPPP: Storm Water Pollution Prevention Plan (Construction BMPs).

URMP: The City's Urban Runoff Management Plan.

GUIDELINES FOR THE PLANNING, DESIGN AND INSPECTION
OF CITY STREETScape PROJECTS

CITY DEPARTMENTS:

DOT: Department of Transportation

DPW: Department of Public Works

ESD: Environmental Service Department

Planning or PBCE: Department of Planning, Building and Code Enforcement

SBWR: South Bay Water Recycling Program

JOB DESCRIPTIONS:

City Arborist: DOT City Arborist reviews and approves the removal or installation of street trees, and the selection of the species of Project street tree.

City Landscape Architect: DPW Landscape Architect assigned to review the Project Landscape Improvement Plans.

City Landscape Inspector: DPW Inspector assigned to inspect City Streetscape Projects.

City Planner: City of San Jose Planner assigned by the Director of PBCE as the Project Manager for Project Planning approvals.

City Project Manager: DPW Landscape Architect or Engineer assigned to review the Project Landscape Improvement Plans.

City Tract Inspector: DPW Inspector assigned to review the street improvements for private development projects built by Developers, located in the Public right of way.

Developer: A Developer of private development projects.

Principal Landscape Inspector: DPW Principal Inspector assigned to supervise the City Landscape Inspector and City Streetscape Projects.

Principal Tract Inspector: DPW Principal Inspector assigned to supervise the City Tract Inspector and private development street improvement projects.

Project Civil Engineer: Civil Engineer, who is either a City of San José staff member or consultant, who designs the Engineering Street Improvement Plans.

Project Landscape Architect: Landscape Architect, who is either a City of San José staff member or consultant, who designs the Project Landscape Improvement Plans.

OUTSIDE AGENCIES:

BASMAA: Bay Area Stormwater Management Agencies Association.

DHS: Department of Health Services, State of California.

SCVURPPP: Santa Clara Valley Urban Runoff Pollution Prevention Program.

SJRA: San José Redevelopment Agency.

SWRCB: State Water Resources Control Board

- END OF GUIDELINES -